

GOVERNMENT OF INDIA  
DEPARTMENT OF ARCHAEOLOGY  
CENTRAL ARCHAEOLOGICAL  
LIBRARY

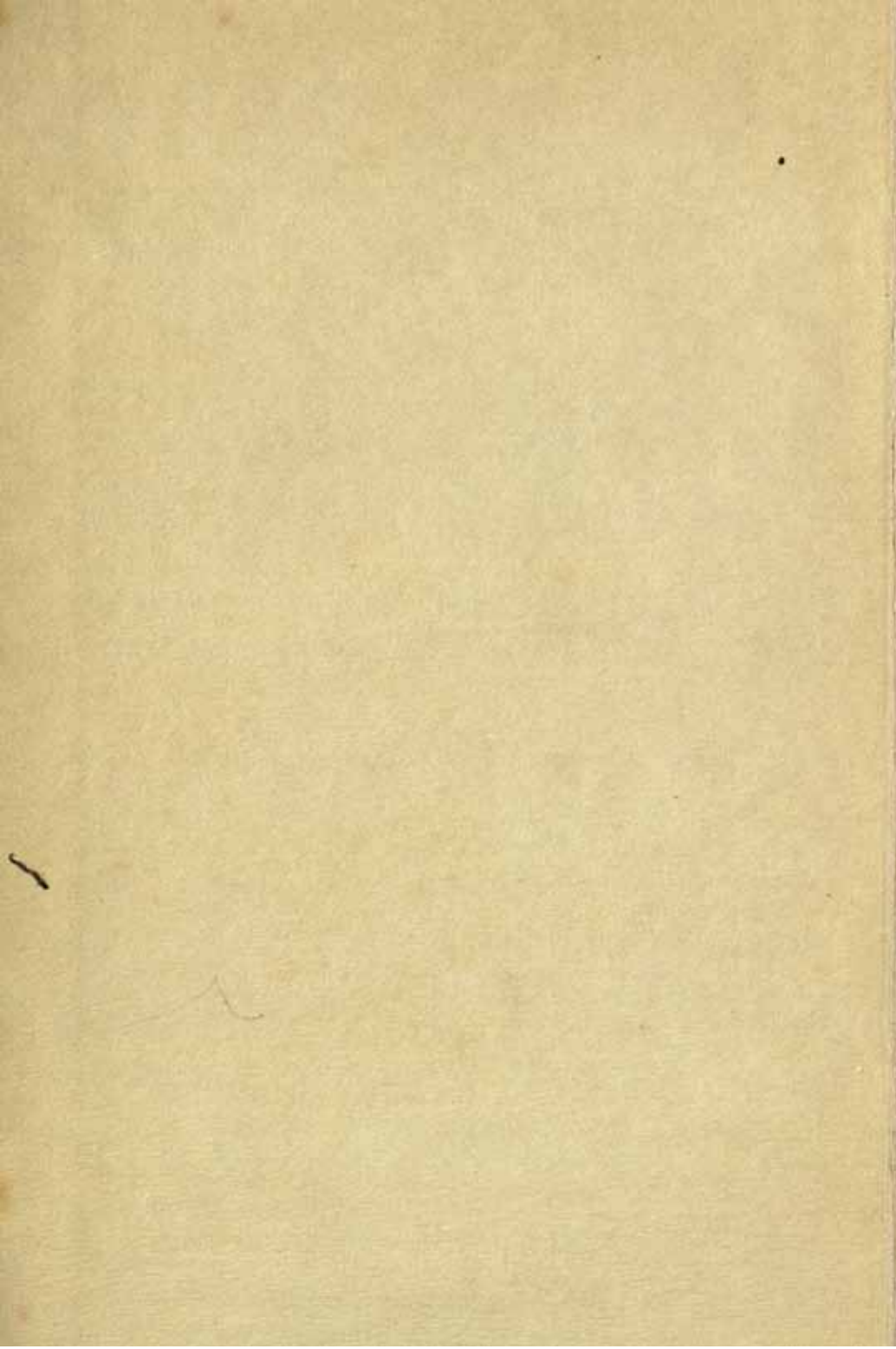
---

CLASS \_\_\_\_\_

CALL No **913.33** *Hen*

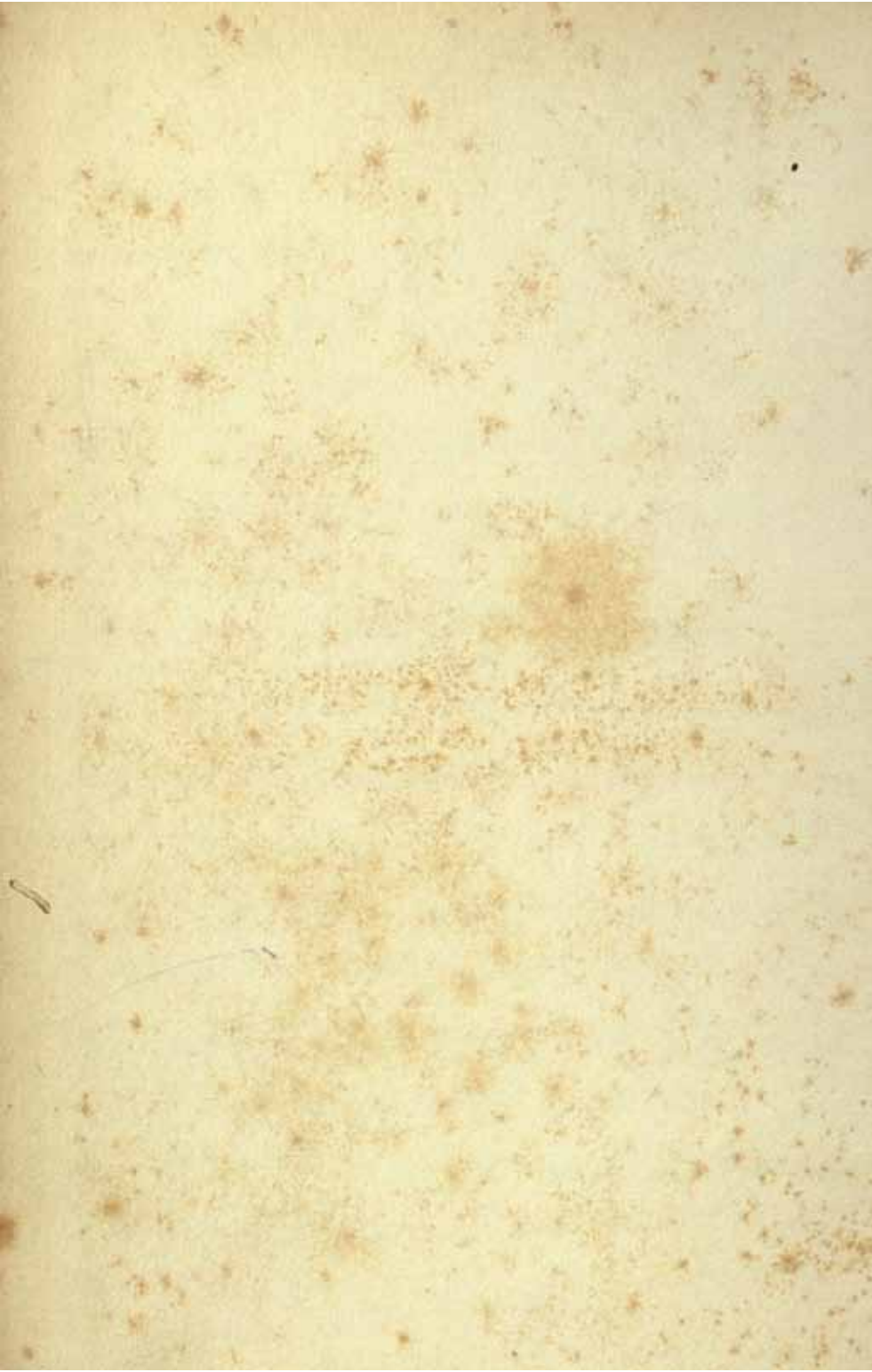
D.G.A. 79.

Lakshmi Book Store,  
42 M.M. Queensway,  
New Delhi.



THE ARCHÆOLOGY  
OF THE HOLY LAND









A PHILISTINE VASE FROM BETHSHEMESH.  
(By kind\*permission of the Palestine Exploration Fund.)

*Frontispiece.*

# THE ARCHÆOLOGY *of* THE HOLY LAND

BY

P. S. P. HANDCOCK, M.A.

MEMBER OF THE INNER TEMPLE, BARRISTER-AT-LAW ; LECTURER OF THE PALESTINE EXPLORATION FUND ; FORMERLY ASSISTANT IN THE DEPARTMENT OF EGYPTIAN AND ASSYRIAN ANTIQUITIES, BRITISH MUSEUM ; AUTHOR OF "MESOPOTAMIAN ARCHÆOLOGY," "LATEST LIGHT ON BIBLE LANDS," ETC.

1307

WITH COLOURED FRONTISPIECE, 25 PLATES,  
109 FIGURES IN TEXT, AND 2 FOLDING PLANS

913.33

Ham

T. FISHER UNWIN, LTD.  
LONDON : ADELPHI TERRACE

*First published in 1976*

**OENTH ... LIBRARY NEW DELHI**

Acc. No. ....1307.....

Date.....2.4.54.....

Call No ....913.33.1 Han.....

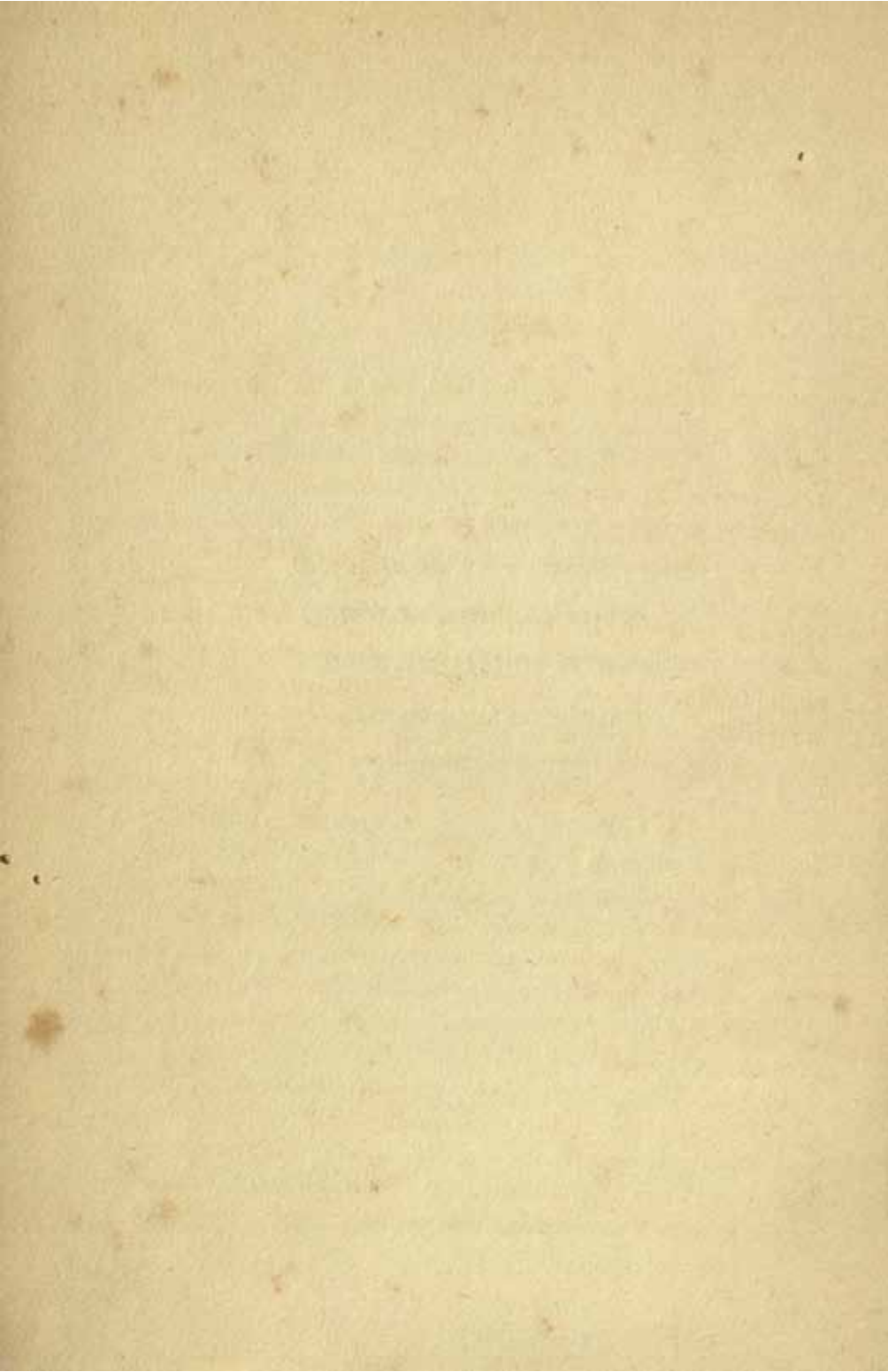
*(All rights reserved)*



Lakshmi Book Store New Delhi

25-3-54

TO  
THE MEMORY OF MY BELOVED AND  
DEEPLY LAMENTED SISTER,  
MARY HUMPHREYS,  
I RESPECTFULLY DEDICATE  
THIS VOLUME



## PREFACE

THE writer's object in this volume is to give some account of the arts, crafts, manners, and customs of the inhabitants of Palestine from the earliest times down to the Roman period. It has not been thought necessary to give a history of the excavations; this has been done so frequently and so well, that it would only be travelling over well-worn ground. An excellent account is given in Père Hugues Vincent's *Canaan d'après L'exploration récente*, and those who wish to acquaint themselves with the history of the work carried on in Palestine, cannot do better than consult that volume. In the same way the Flora and Fauna of the country have been dealt with very many times, the standard work, of course, being the *Survey of Palestine*, published by the Palestine Exploration Fund, while those who desire a shorter account may be referred to Tristram's *Natural History of the Bible*. The same observation applies to geology, a concise summary of which is given by M. Blanckenhorn in the *Zeitschrift des Deutschen Palestina Vereins*, xxxvii (1914), pp. 20-44.

It would have been quite impossible for the writer on every occasion to acknowledge his indebtedness to the many scholastic works which he has consulted in the preparation of this volume, but he desires here to record his special obligations to



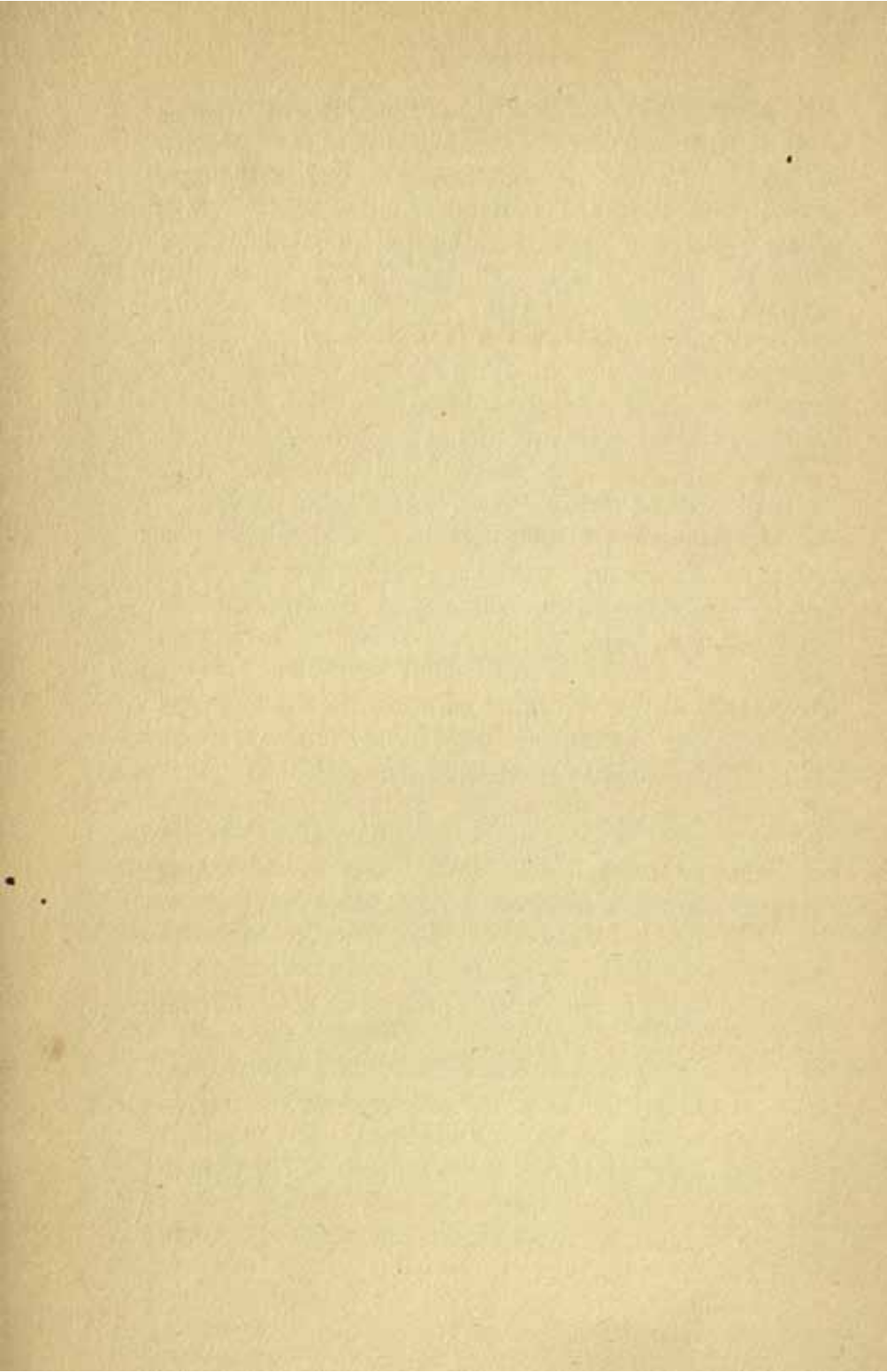
Professor Steuernagel's *Tell el-Mutesellim* (Leipzig, 1908); to Professor Sellin's *Tell Ta'annek* (Vienna, 1904), and *Eine Nachlese auf dem Tell Ta'annek* (Vienna, 1905), from volumes I and lii of the *Denkschriften* of the Vienna Academy (Phil.-Hist. Klasse) respectively, and to the same scholar's *Jericho* (Leipzig, 1913) in which Dr. Watzinger co-operated. He is also greatly indebted to Père Hugues Vincent's *Canaan d'après L'exploration récente* (Paris, 1907). Lastly, he has to acknowledge his obligations to the numerous works which have been published from time to time by the Palestine Exploration Fund, amongst which *A Mound of Many Cities*, by Dr. F. J. Bliss, *Excavations in Palestine*, written by the same scholar in co-operation with Professor R. A. S. Macalister, and Professor Flinders Petrie's *Tell el-Hesi*, must be specially mentioned. But most of all is he indebted to Professor Macalister's *Excavation of Gezer* (3 vols.), published under the auspices of the same fund. This epoch-making work is by far the most important contribution that has been made to the science of Palestinian Archæology, and is in fact an inexhaustible mine of information upon which all students of the subject will be largely dependent for many years to come. The same scholar has also, in the midst of all his other work, found time to give him additional information on some of the subjects discussed in this present volume, for which he takes this opportunity of expressing his sincere thanks.

The writer's thanks are further due to the Palestine Exploration Fund for supplying him with a considerable number of photographs as well as according him permission to reproduce the same, and for further facilitating the illustration of this book in every way in their power. He is indebted to the Society for Promoting Christian Knowledge for kindly lending

him photographs published in the present writer's *Latest Light on Bible Lands*, and also to the *Harvard Theological Review* for permission to reproduce photographs illustrating the excavations at Samaria. Most of the plans and drawings used for this volume are the work of Miss Grace Clegg, who has performed her task with her usual skill.

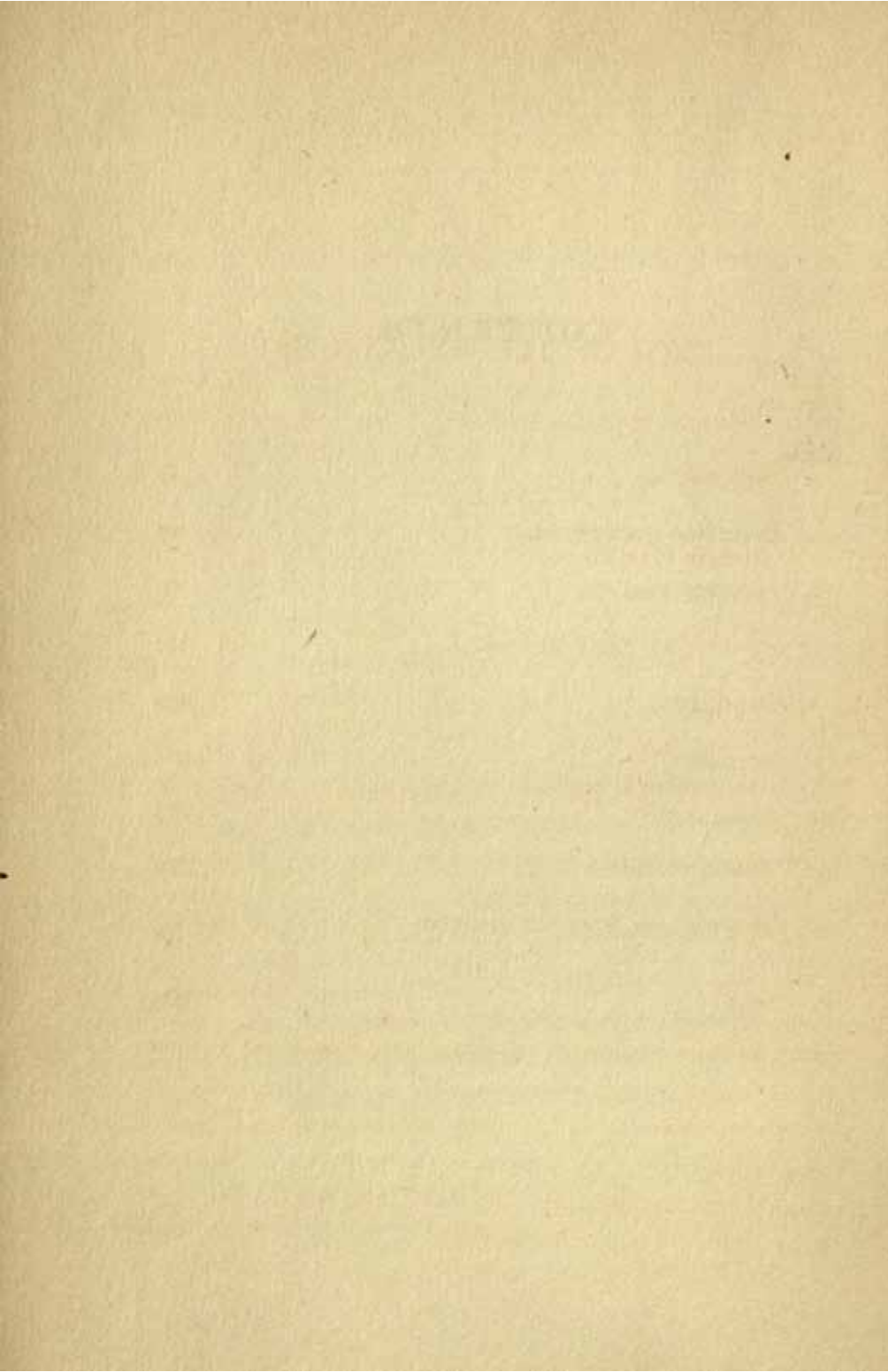
P. S. P. H.





# CONTENTS

	PAGE
PREFACE . . . . .	7
CHAPTER	
I. INTRODUCTION . . . . .	17
II. CAVES AND ROCK-CUTTINGS . . . . .	27
III. ARCHITECTURE . . . . .	65
IV. FLINT, BONE, IVORY, AND STONE . . . . .	142
V. METALLURGY . . . . .	179
VI. POTTERY . . . . .	215
VII. TERRA-COTTA . . . . .	273
VIII. BURIAL CUSTOMS . . . . .	302
IX. WORSHIP AND PLACES OF WORSHIP . . . . .	327
INDEX . . . . .	375



# LIST OF ILLUSTRATIONS

A PHILISTINE VASE FROM BETHSHEMESH.

*Coloured Frontispiece*

## PLATES

	TO FACE PAGE
I. CHAMBER WITH CUP-MARKS . . . . .	32
II. STAIRWAY ENTRANCE TO A CAVE . . . . .	34
III. ENTRANCE TO THE WATER-PASSAGE AT GEZER . . . . .	52
IV. THE WATER-PASSAGE LOOKING DOWNWARD . . . . .	54
V. THE WATER-PASSAGE LOOKING UPWARD . . . . .	56
VI. TELL EL-HESY . . . . .	64
VII. THE CITY-WALLS AT GEZER . . . . .	66
VIII. MASONRY OF INNER CITY-WALL AT GEZER . . . . .	68
IX. TOWER OF INNER CITY-WALL . . . . .	70
X. TOWER WITH BASTION REMOVED . . . . .	72
XI. INTERIOR OF FORTRESS AT TELL ZAKARIYA . . . . .	74
XII. LARGE BRICK BUILDING AT GEZER . . . . .	116
XIII. ISRAELITE ROOMS AT SAMARIA . . . . .	120
XIV. ISRAELITE WALLS WITH SUPERIMPOSED SELEUCID WALLS . . . . .	122
XV. VAULTED CHAMBER AT SAMARIA . . . . .	138
XVI. NORTH-WEST CORNER OF VAULTED CHAMBER AT SAMARIA . . . . .	140
XVII. VARIOUS TYPES OF MILLSTONES AND MORTARS . . . . .	164
XVIII. THE "CALENDAR-TABLET" . . . . .	178
XIX. LIBATION VASE FROM BETHSHEMESH . . . . .	280

	TO FACE PAGE
XX. LIBATION VASE FROM BETHSHEMESH . . . . .	282
XXI. TOMB-CHAMBER AT BETHSHEMESH . . . . .	320
XXII. ROCK-CUT "PLACE OF SACRIFICE" . . . . .	326
XXIII. CAVE AT GEZER . . . . .	328
XXIV. STAIRCASE IN CAVE AT GEZER . . . . .	330
XXV. <i>MAṢṢĒBĀS</i> AND SOCKETED STONE AT GEZER . . . . .	350

## ILLUSTRATIONS IN TEXT

FIG.	PAGE
1-3. PLANS OF CAVES . . . . .	31-44
4-9. GRAFFITI . . . . .	47
10, 11. PLANS OF CAVES . . . . .	48-51
12. PLAN OF CAVE-CISTERN . . . . .	59
13, 14. OLIVE-PRESSES . . . . .	60-63
15. SECTION OF CENTRAL CITY WALL AT GEZER (TELL EI-JEZER) .	67
16. PLAN OF TELL ZAKARĪYA . . . . .	74
17. PLAN OF TELL EṢ-ṢĀFI . . . . .	76
18. PLAN OF TELL EL-JUDEIDEH . . . . .	78
19. PLAN OF TELL SANDAḤANNAH . . . . .	80
20. PLAN OF THE SOUTH GATE AT BETHSHEMESH ('AIN SHEMS) .	83
21. PLAN OF MEGIDDO (TELL EL-MUTESELLIM) . . . . .	103
22. PLAN OF WESTERN FORTRESS AT TAANACH (TELL TA'ANNEK) .	106
23. SECTION OF WALL OF WESTERN FORTRESS AT TAANACH .	107
24. PLAN OF EASTERN FORTRESS AT TAANACH . . . . .	110
25. PLAN OF FORTRESS AT 'AIN EL-GUDERAT . . . . .	113
26. PLAN OF AN IMPORTANT BUILDING AT GEZER . . . . .	115
27. PLAN OF BUILDING (THIRD SEMITIC PERIOD) AT GEZER .	116
28. PLAN OF BUILDING AT LACHISH (TELL EL-ḤESY) . . . . .	117
29. PLAN OF LARGE ISRAELITE BUILDING AT JERICO (TELL EṢ-SULTAN) . . . . .	119
30. PLAN OF ISRAELITE HOUSES AT JERICO . . . . .	129



## LIST OF ILLUSTRATIONS

15

FIG.		PAGE
31.	PLAN OF IMPORTANT BUILDING AT JERICHO . . .	131
32.	PLAN OF HOUSE IN RUJM 'ABD ALLAH . . .	133
33.	WINDOW-CONTRIVANCE (?) FROM TAANACH . . .	138
34.	VAULTED CHAMBER AT MEGIDDO . . .	139
35.	VERTICAL JAR-DRAIN . . .	141
36, 37.	FLINT IMPLEMENTS AND WEAPONS . . .	143-147
38.	BONE OBJECTS . . .	150
39.	IVORY OBJECTS . . .	155
40-45.	STONE OBJECTS . . .	159-176
46.	COPPER IMPLEMENTS AND WEAPONS . . .	180
47, 48.	BRONZE SPEAR AND ARROW-HEADS . . .	182-183
49-53.	BRONZE KNIVES, SWORDS, ORNAMENTS, ETC. . .	185-196
54, 55.	FIGURINES AND OTHER OBJECTS OF BRONZE . . .	197-199
56.	BRONZE HORSE-BIT (?) . . .	202
57.	IRON SPEAR-HEADS, KNIVES, ETC. . .	205
58.	TOOLS, NAILS, AND OTHER OBJECTS OF IRON OR LEAD . . .	207
59.	SICKLE FROM MEGIDDO . . .	209
60.	OBJECTS IN GOLD AND SILVER . . .	213
61-81.	POTTERY . . .	217-267
82.	LAMPS, POTTER'S MARKS, ETC. . .	270
83.	GLASS CUP . . .	271
84.	ASTARTE FIGURES IN TERRA-COTTA . . .	274
85.	TERRA-COTTA FIGURINES . . .	279
86.	TERRA-COTTA HEAD FROM JERICHO . . .	284
87.	TERRA-COTTA ANIMALS, ETC. . .	286
88.	STAMPS ON JAR-HANDLES, ETC. . .	290
89.	INCENSE-ALTAR . . .	292
90.	PLAN OF GEZER CREMATORIUM . . .	303
91-93.	PLANS OF BURIAL-CAVES . . .	308-319
94, 95.	CONTRACTED BURIALS . . .	322-323

FIG.		PAGE
96.	PLAN OF LATE BURIAL CHAMBER . . . . .	325
97, 98.	SUBTERRANEAN CAVES AT TAANACH . . . . .	332-333
99-101.	"HIGH PLACE" AT TELL EŞ-ŞÂFI . . . . .	334-336
102.	MAŞŞĒBĀS AT TAANACH . . . . .	341
103.	PLAN OF CAVES ASSOCIATED WITH "HIGH PLACE" AT GEZER . . . . .	346
104.	MAŞŞĒBĀS AT GEZER . . . . .	348
105, 106.	TEMPLE (?) AT GEZER . . . . .	359-360
107-109.	FOUNDATION-SACRIFICES . . . . .	370-372

## FOLDING-PLANS AT END OF VOLUME

- I. JERICO
- II. CANAANITE HOUSES AT JERICO

# THE ARCHÆOLOGY OF THE HOLY LAND

## CHAPTER I

### INTRODUCTION

IN the accepted sense of the word history only commences with inscriptions or written documents, but the history of civilization and culture is read rather by their tangible results. Hence it is, that while ordinary history is dependent on written statements, which are in nearly all cases either biassed by the self-adulation of the writer, or else prejudiced by the antagonistic attitude of the recorder, the history of art, literature, and culture is read in the light of the incontrovertible and concrete facts in which it is written. It is customary to speak of the times before the occurrence of written documents as Pre-historic, but that term is wholly inapplicable to the history of culture, for it depends on achievements and not words, and achievements in this sphere are the only admissible form of evidence. Of the history of Palestinian civilization in Palæolithic times we know little, unwrought flint implements and weapons<sup>1</sup> being the only records that have come down to us. But the epoch-making excavations of Professor Macalister at Tell ej-Jezer, the site of ancient Gezer, have thrown a

<sup>1</sup> Cf. Macalister in *P. E. F. Quarterly Statement*, 1912, pp. 44 f., 82 f.



flood of light upon the civilization, manners, and customs of the Neolithic inhabitants of the country. Whether the latter were indigenous or not it is impossible to say, but it is certain that they belonged to a non-Semitic stock. They were a people of comparatively short stature, who dwelt in caves or primitive huts of wood and stone. They cremated their dead, apparently in a special cave prepared for the purpose, and they deposited vessels containing food and drink for the consumption of the departed, a sure and certain proof of their belief in the future life. The caves of these Troglodytes contained rough hand-made pottery, some of which was painted with red or white lines. The only weapons or large implements discovered were made of flint, which was in some cases very carefully and skilfully wrought, while the bones of various animals and birds, including the stork, the cow, the pig, the sheep, and the goat, were used for making pins or needles. Grindstones were also found, which fact shows that agriculture was not unknown to this primitive people. No other Neolithic centre of population has as yet been found in Palestine, but the Megalithic remains which have been discovered on both sides of the Jordan are no doubt attributable to the pre-Semitic inhabitants of the country. Some of the most remarkable dolmen areas are those in the Ḥauran and in the Jaulan,<sup>1</sup> while Ammān<sup>2</sup> constitutes another dolmenic centre. The simplest form<sup>3</sup> of dolmen consists of two slabs of stone set on end, upon which was laid a covering-slab. The second stage in its development is marked by the multiplication of the orthostatic slabs on either side into long parallel rows, which thus formed a kind of cella. In the third stage we find a

<sup>1</sup> Cf. Schumacher, *Across the Jordan*, p. 62, and *The Jaulan*, p. 123.

<sup>2</sup> Cf. *P. E. F. Annual*, 1911, pp. 9, 10 ff.

<sup>3</sup> Cf. *Survey of Eastern Palestine*, p. 187 f.

combination of upright slabs below with coursed splayed masonry above, while the fourth stage is characterized by the arrangement of several parallel chambers of this kind as at Rujm-el-Melfuf.<sup>1</sup> The five megalithic monuments close to Hizmeh, a village north of Jerusalem, and known locally as Kabur Beni Isra'in, belong to the same advanced stage in the history of megalithic civilization. Many of the Moabite dolmens on the east side of the Jordan are surrounded by one or more rings of boulders, but apart from these, the circles of stones found in various parts of Western Europe do not occur.<sup>2</sup>

There is a divergence of opinion in regard to the object and purpose which these dolmens were meant to serve. One theory is that they are altars.<sup>3</sup> But some of the dolmens on the east of the Jordan are from 9 to 12 feet high, and therefore cannot possibly have been altars. Then again there is sometimes a slab of stone on the ground between the orthostatic slabs, while the latter as a rule slope outwards from bottom to top. Neither of these features are explicable on the altar-theory. The floor-stones are, moreover, sometimes perforated with holes which can have hardly any reference to the supposed altar above. The most probable theory is that they were in some way connected with the burial of the dead. It has been suggested that they are tombs pure and simple, but the occurrence of holes in the ground-

<sup>1</sup> Cf. *P. E. F. Annual*, 1911, p. 11.

<sup>2</sup> Many stone circles and cairns have been found in Sinai, but apparently none of these belong to the Stone Age, while few of them are earlier than the Byzantine period, and the vast majority are no doubt comparatively modern. These artless structures are however difficult to date, for they show the same characteristics throughout, and the materials of which they are made are necessarily identical at all periods (cf. Woolley and Lawrence in *P. E. F. Annual*, 1914-15, p. 20).

<sup>3</sup> Cf. Spoer in *Zeitschrift für Alttestamentliche Wissenschaft*, 1908, pp. 271-90.



slabs and the general absence of bones in the dolmens, and also the very limited dimensions of some of them, are more readily accounted for on the theory that the body itself was not deposited within the dolmen, but near or beneath it, the dolmen itself being erected as a habitation for the ghost of the departed one.<sup>1</sup>

Evidence of some such belief in regard to stone monuments or stone seats is afforded by the Aramaic, Nabataean, and Palmyrene inscriptions. Thus a late Aramaic inscription<sup>2</sup> of about the fourth century B.C. reads: "The seat which Ma'nān, son of 'Imran, offered to the god Šalm, for the life of his soul." The word used for "soul" is the ordinary Hebrew word *nephesh*, and this same term (or its feminine form) is frequently used to designate a *monument* set up over a grave. Thus a Nabataean inscription<sup>3</sup> found at Medeba in Moab commences: "This is the sepulchre, and the two *monuments* (the word used is *nephesh*) above it," etc. From these facts it seems clear enough that the application of the term *nephesh*, "soul," to monuments set up over a grave is only explicable on the theory that sepulchral monuments were originally, if not in later times, regarded as the abode of the soul of the departed.<sup>4</sup> The origin of this belief may well go back to what may perhaps be called the Dolmenic Period, and the dolmens, for the reasons given above, were probably not actual sepulchres for the accommodation of the bodies of the departed, but rather sepulchral monuments erected as a dwelling-place for the *nephesh*, or soul.

<sup>1</sup> Cf. H. Gressmann in *Zeitschrift für Alttestamentliche Wissenschaft*, 1909, pp. 113-28; Schumacher in *Mittel. und Nachricht. des Deutsch. Pal.-Ver.*, 1899, p. 39.

<sup>2</sup> Cf. *Corpus Inscriptionum Semiticarum*, ii, 114.

<sup>3</sup> *Ib.* ii, 196, and G. A. Cooke, *North Semitic Inscriptions*, p. 247.

<sup>4</sup> Cf. further G. A. Cooke, *ib.* pp. 214, 312.

Reference is made elsewhere to the menhirs or *maššēbās* found in various parts of Palestine. Whether the practice of erecting these stones originated with the Semites or not it is impossible to say. It seems probable that at least some of the *maššēbās* in Semitic times were venerated, and perhaps also erected by reason of the sacrosanct character which they had acquired in the Pre-Semitic Period.<sup>1</sup>

There is, however, no theory of universal application in regard to their purport. Some of them were no doubt simply boundary-stones (cf. *Genesis* xxxi, 45, 51, 52). Others again were probably sepulchral monuments like the *maššēbā* which Jacob erected over the grave of Rachel (cf. *Genesis* xxxv, 20). *Maššēbās* were again sometimes erected as personal memorials, like the "pillar" (*maššēbā*) which Absalom set up as a memorial of himself because he had no son to keep his name in remembrance after his death (cf. 2 *Samuel* xviii, 18), while many obviously have a religious significance. Some of the latter may conceivably be intended to represent phalli, but the majority bear no resemblance thereto. On the other hand, some of the *maššēbās* erected for comparatively secular purposes may have been selected by reason of the prophylactic power of which they had become possessed as the result of their religious significance in earlier days, and this may be the explanation of their occurrence in the walls of buildings.<sup>2</sup> In some cases again the religious character attaching to certain stones may itself have been derived or developed from the sanctity which the stone had acquired as the outward and tangible sign of a sacred compact.

<sup>1</sup> Cf. further P. D. Mader in *Zeitschrift des Deutsch. Pal.-Ver.* xxxvii, 1914, pp. 20-44; S. Ronzevalle in *Mélanges de la Faculté orientale* (Beirut), iv, 1910, pp. 189-208.

<sup>2</sup> Cf. Sellin and Watzinger, *Jericho*, pp. 18, 19; 187, 188 ff., and below, pp. 342, 343.



The date of the first appearance of Semites in Palestine cannot be determined with any degree of accuracy, but may be provisionally fixed at about 2500-2000 B.C. Their arrival is marked by the introduction of the use of metal and also of the potter's wheel. Moreover, in contradistinction to their Troglodyte predecessors, they buried and did not cremate their dead. So far as we know, they are responsible for the earliest buildings which have been discovered. The central city-wall at Gezer, which consists of a rude earth bank lined inside and outside with a stone facing, is indeed assigned by Professor Macalister to the Troglodytes,<sup>1</sup> but, apart from a few insignificant remains, that appears to be the only certain example of Pre-Semitic architecture in Palestine.

In the very earliest Semitic times Palestinian civilization and culture do not appear to have been affected by foreign influence, but this did not last for long, as is attested by the large number of Egyptian scarabs of the Twelfth Dynasty which have been recovered. The appearance of this extraneous influence forms the natural line of demarcation between the First and Second Semitic Periods. In the latter period the arts and crafts pursued by the Semitic inhabitants of Palestine were influenced not only by the civilization of Egypt, but also by that of Crete, the Ægean regions, and especially Cyprus. From that time onwards Palestinian culture is devoid of originality. The foreign influences under which it successively fell were various; Egypt first, then the great civilizations of Crete and the Ægean; after that followed the classical Greek culture, Rome and Byzantium. The Semitic natives themselves invented nothing, but their capacity for assimilation at least compensated in a measure for their lack of

<sup>1</sup> Cf. Macalister, *The Excavation of Gezer*, i, pp. 237, 238.

spontaneity. The stimulus of these influences was greatest in the earliest days of their appearance; they then deteriorate, but when about to disappear altogether fresh influences from somewhere else come in to take their place.<sup>1</sup> Thus in the Third Semitic Period, which extended roughly from about 1400 to 1000 B.C., Egyptian and Ægean influence are still discernible, but these influences are reminiscent rather than direct. In the Fourth Semitic Period, which is more or less contemporaneous with the Israelite occupation, this tendency becomes even more pronounced, but then fresh imports from Cyprus restore the waning balance of foreign influence in Palestinian culture. The Hellenistic Period, which began about 550 B.C. and lasted down to Roman times, is characterized by the influence of Greece and the Greek Islands.

It need hardly be stated that these dates are only provisional, and that in point of fact there is no clear line of demarcation between one period and another, for the evolution and development of the various arts proceed quite normally. In view of this fact, it will be at once recognized that, in the case of a large proportion of the objects which have been recovered, one cannot speak definitely as to the period to which they belong. Many of the objects, again, are on the border-line which vaguely separates one period from that which succeeds it, and accordingly may belong to the end of the former or the beginning of the latter. Furthermore, the rate of progress is not necessarily constant all over Palestine. It will thus be observed that the greatest latitude must be allowed in any attempt at assigning even the most provisional dates to the periods thus characterized.

<sup>1</sup> For the influence of Ægean civilization upon Egypt and Palestine cf. R. von Lichtenberg in *Mitteilungen der Vorderasiatischen Gesellschaft*, xvi, 1911, part 2, pp. 1-104.



This inevitable uncertainty about the dates of the different periods makes it practically impossible to even approximately date many individual objects, while, as already indicated, it is often impossible even to assign them to one of these vaguely dated periods. Those on the border-line between two periods are, however, by no means the most difficult objects to date. The fact that they are on such border-line means that they possess certain well-defined characteristics which enable one to allocate them to the latter part of one period or the early part of another, and generally implies the existence of a standard of comparison which is the justification of their assignment to one or other of the periods in question.

Either similar objects have been found which on other satisfactory grounds have been attributed to a particular period of culture, a comparison with which enables one roughly to fix the date of the newly acquired objects, or else the latter have been found in undisturbed *débris*, in which they are associated with objects belonging to a particular period with which they are probably contemporaneous. But even then there is an element of doubt, for though the undisturbed condition of the *débris* precludes the possibility of any of the objects therein contained being later than the ruined *débris* itself, there is always the chance that they may belong to an earlier time and have been used again at a later date by the people whose occupation is represented by the *débris*. Then again, the laying of the foundation of a building often involved the upheaval of the *débris* of earlier structures, and consequently brought the remains of a previous period up to a stratum to which it does not belong. For a similar reason the assumption that a building of which the foundations extend down to the rock-

surface is necessarily contemporaneous with other buildings on the same site, which have also been founded on the rock, is by no means necessarily correct. The builder of a particular house may have quite possibly elected to carry his foundations down to a greater depth than usual, and in doing so he of course penetrated earlier *débris*. Thus it is that objects of a most primitive character are often found in *débris* lying considerably above the foundations of a much later house, and afford no indication as to the date of the house. But in the case of towns in which the buildings are mainly constructed of brick, the stratification is, with some exceptions of the character indicated above, a fairly reliable criterion of the relative dates of the objects found in the *débris*. This is due to the fact that when the brick buildings fell victims to time, climate, or war, the *débris* was levelled, and new buildings were erected on the artificial platform thus created. But in towns where stone was the principal material used for architectural purposes this welcome guide to the archæologist is in general lacking.

The difficulty in dating the remains found in caves is, on the other hand, of a different character. Many of the caves have been used and re-used at widely different periods and for widely different purposes. Some caves, for example, were originally dwelling-places of the Troglodytes; they were subsequently used as burial-places by the early Semites; they were then converted into cisterns or storehouses; and finally they were sometimes re-used once more as habitations in comparatively modern times. Accordingly the objects found in these caves can usually only be dated by the character and features of the objects themselves, there being as a rule very little in the nature of stratification of *débris* to help one.



In regard to buildings, as a general rule they can only be dated by the objects found there or in the corresponding strata elsewhere, or else by the remains of walls above or beneath them. They can seldom be assigned to any particular period simply and solely on the ground that they display a particular form of architecture or a particular mode of structure.

Such are a few of the difficulties that beset the student of archæology, and a few of the reasons which render anything in the nature of dogmatism on these matters not only out of place but absolutely misleading.

## CHAPTER II

### CAVES AND ROCK-CUTTINGS

THE manifold purposes which caves and rock-cut pits served in Palestine are readily accounted for by the large number of natural caverns on the one hand, and the friability of the soft limestone rock of Palestine on the other. These excavations in the rock were used as dwelling-places for the living, abodes for the dead, cisterns, store-chambers,<sup>1</sup> probably also as places of worship, prisons,<sup>2</sup> traps,<sup>3</sup> hiding-places, and perhaps even as stables.<sup>4</sup>

To Professor Macalister's excavations at Gezer,<sup>5</sup> we are indebted for most of our knowledge in regard to the caves which served as the dwelling-places of the Neolithic inhabitants of Palestine.<sup>6</sup> The discovery of

<sup>1</sup> Cf. Bliss-Macalister, *Excavations in Palestine*, pp. 22, 262.

<sup>2</sup> Cf. *Genesis* xxxvii, 20; *Jeremiah* xxxviii, 6.

<sup>3</sup> The danger of open pits and the disastrous consequences which have sometimes resulted therefrom are proved by the discovery of skeletons of people who had evidently fallen in. Compare the injunction in *Exodus* xxi, 33 (cf. also *Matthew* xii, 11).

<sup>4</sup> In one of the caves at Tell Sandahannah tether-holes were found in the wall, which led the excavators to think that the chamber in question was very likely used as a stable (cf. Bliss-Macalister, *Excavations*, p. 241).

<sup>5</sup> See Macalister, *Gezer*, i, pp. 70-152, for an exhaustive account of the caves.

<sup>6</sup> Caves which, so far as can be gathered were used only for burial purposes, whether by the Troglydites, their successors, or by both, will not be discussed in this chapter, as their chief interest centres in the



these natural caverns was doubtless a main if not the sole cause of their early settlement at Gezer. Moreover, the softness of the limestone rock out of which they were formed, rendered their alteration or enlargement a comparatively easy matter. This was all-important, as the flints, which were the only implements of this primitive people, would have been useless against a harder stone.

Many of the caves of the Troglodytes were used subsequently by the Semites, who not infrequently enlarged or altered them. They are not, however, ordinarily used by the Semites as dwelling-places for the living, but as abodes for the dead, as cisterns, or as cellars. In many cases the cave was used first as a Troglodyte habitation, then as a burial-place by the early Semites, and finally as a cistern.<sup>1</sup> The history of some of these Gezer caves extends right down to the present day, certain of them having been used as habitations within living memory.<sup>2</sup>

In many cases it is impossible to say whether the cave is of artificial or natural formation, or in the case of a cave consisting of series of connected chambers, which of those chambers is partially or entirely the work of man. Tool-marks are frequent, and when they occur they of course afford conclusive proof of man's operations, but their absence is no certain indication that a chamber is of natural origin, for the friable nature of the limestone is without doubt accountable in many cases for the disappearance of tool-marks which once information they afford regarding the burial customs of the ancient inhabitants of Palestine, and they will accordingly be described in the chapter which deals with that subject. For the same reason the cave associated with the "High Place" at Gezer, and the caves associated with the rock-cut "place of sacrifice," are not described here, but will be dealt with in chapter IX.

<sup>1</sup> Cf. Macalister, *Gezer*, i, p. 86 f.

<sup>2</sup> Cf. *ib.* i, p. 70.

existed. This is one of the numerous illustrations of the inexactness of archæological science. Certainty is seldom reached, and extreme probability is, as a rule, the nearest approach to definitely established fact that can be made.

The caves exhibit great variety in size, shape, and formation. Generally speaking they have a diameter between 18 and 40 feet. The roofs are low, but not so low as to require one to stoop, except occasionally. As already noted, the Troglodytes were a people of short stature, the males probably averaging about 5 feet 6 inches in height, and the small altitude of many of the caves may perhaps be attributed to this fact. It is not, however, to be assumed that we are necessarily to attribute the height of some of the more lofty chambers to the work of enlargement carried on by the Semites, as is shown in the case of cave 30 II,<sup>1</sup> an undisturbed Troglodyte dwelling, which has a maximum height of 7 feet 2½ inches. The most lofty cave discovered at Gezer is 11 feet 5½ inches high.<sup>2</sup> The cave in question (16 III) is a large rectangular chamber, partly divided by a partition, running through the northern half of it, into two more or less square bays (cf. Plate XXIII). There is a further bay-shaped projection on the west side (cf. Plate XXIV).

The doorway is generally in the roof, a rude stairway cut in the rock giving access to the floor of the chamber. The stairs are narrow and have a rise of about 6 inches, and a tread of about 1 foot. "The riser is in all cases convex and slopes outward from top to bottom."<sup>3</sup> The stairways are, as a rule, more or less straight, but winding stairways are sometimes found.<sup>4</sup> There is one example at Gezer of the rock-cut spiral staircase,<sup>5</sup> of such

<sup>1</sup> Cf. Macalister, *Gezer*, i, p. 143.

<sup>2</sup> Cf. *ib.* i, p. 100.

<sup>3</sup> Cf. *ib.* i, p. 73.      <sup>4</sup> Cf. *ib.* i, p. 77.

<sup>5</sup> Cf. *ib.* i, p. 115.



frequent occurrence in the Bêt Jibrîn district. Sometimes a sloping passage takes the place of the stairway, while in certain low chambers, there is neither stairway nor passage, the visitor having to climb in and out of the hole as best he can. Caves on the other hand with high roofs (the dome-shaped chamber 7 II, for example, which is  $6\frac{1}{2}$  feet high<sup>1</sup>) and only a roof-hole for entrance, cannot well have been used as a habitation.

They very frequently consist of more than one chamber, but never of more than one story with one single exception where two stories were found. Occasionally two chambers appear to be joined quite by accident, as in the case of chambers 19 I and 19 II,<sup>2</sup> in the partition of which is a hole too small to serve any practical purpose. In many cases, however, a regular system of chambers has been excavated, as in the case of 15 II,<sup>3</sup> where we find seven chambers arranged *en suite*. As a rule, a series of chambers thus connected no doubt formed one dwelling-place from the outset, but sometimes it would appear that families occupying adjoining caves effected a junction with the residences of their neighbours, hence the elaborate system we find in cave 28 II (see p. 4).

The cave, of which a plan is given in Fig. 1,<sup>4</sup> is the most elaborate from the archæological standpoint, and the most fruitful of all the many caves that Professor Macalister excavated at Gezer. It is apparently a natural cave, which has been artificially enlarged and extended. Such tool-marks as there are, indicate that flint and not metal implements were used in its excavation. There are some nine entrances to the cave. The northernmost of these entrances (A<sup>1</sup>)

<sup>1</sup> Cf. Macalister, *Gezer*, i, p. 80.

<sup>2</sup> Cf. *ib.* i, p. 109.

<sup>3</sup> Cf. *ib.* i, p. 93.

<sup>4</sup> See *ib.* i, pp. 111-41, for a full and exhaustive description of this cave.

consists of a hole about  $5\frac{1}{2}$  feet broad and 4 feet high cut vertically in the rock. This hole leads into chamber (1), the floor of which is about 2 feet below the bottom of the hole. Descent is facilitated by three "toe-holes," which measure about 2 inches across. This chamber (1) is more or less oval in shape, and measures

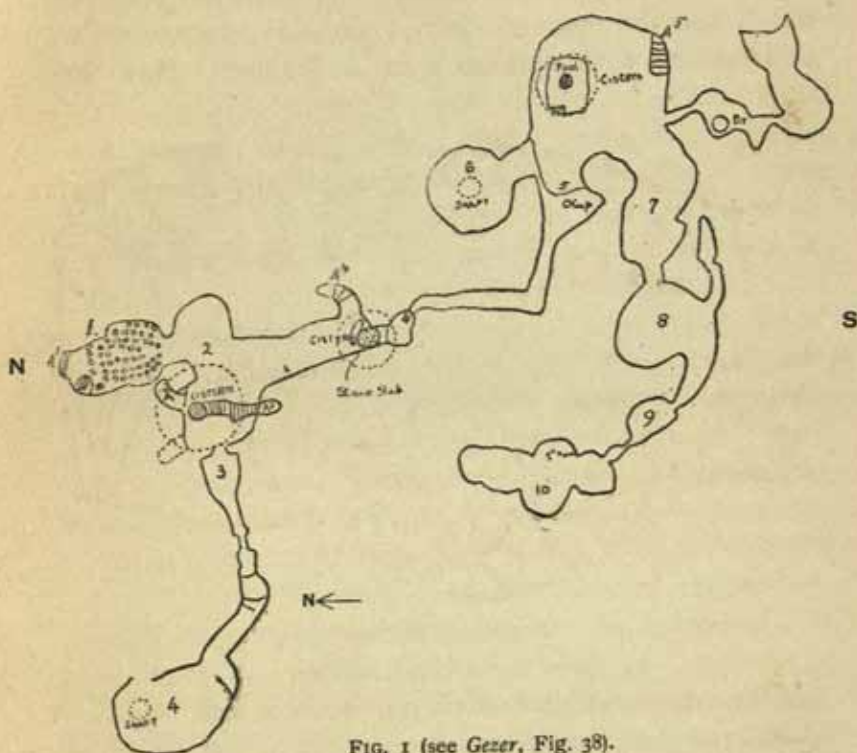


FIG. 1 (see Gezer, Fig. 38).

about 21 feet in length and 14 feet in breadth, while the maximum height is 5 feet 11 inches.

The chief interest of the chamber centres in the elaborate system of cup-marks which it contains (cf. Fig. 2 and Plate I). These cup-marks are alike regular in shape and disposition, and measure from 8 to 12 inches across. They have flat bottoms and vertical sides,



and are arranged in three concentric ovals, open, like horseshoes at the south side of the chamber. The outer series comprises 18, the middle 15, and the inner 9 of these cup-marks. In each case the number is a multiple of 3, and this seems to be intentional, as in the north-east corner of the outer and middle series there are gaps leaving ample room for another cup-mark in either case. On the western side of the doorway there is a small stone wall, consisting of two courses and pro-

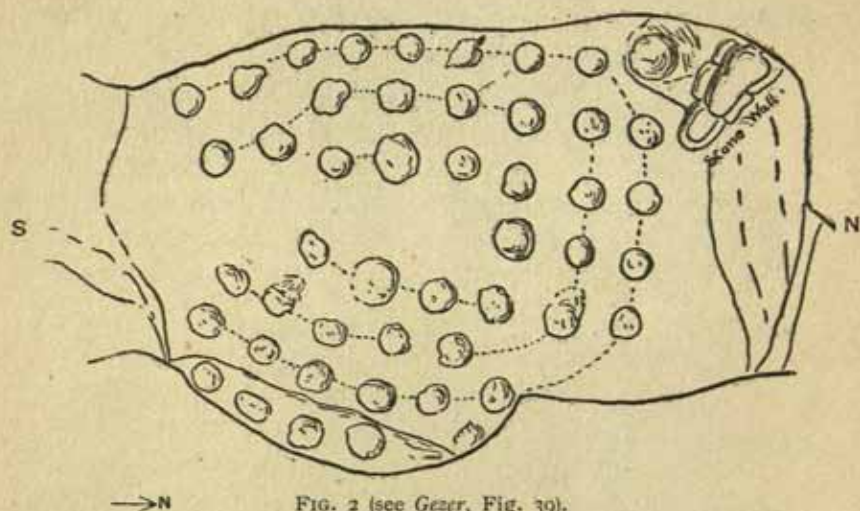
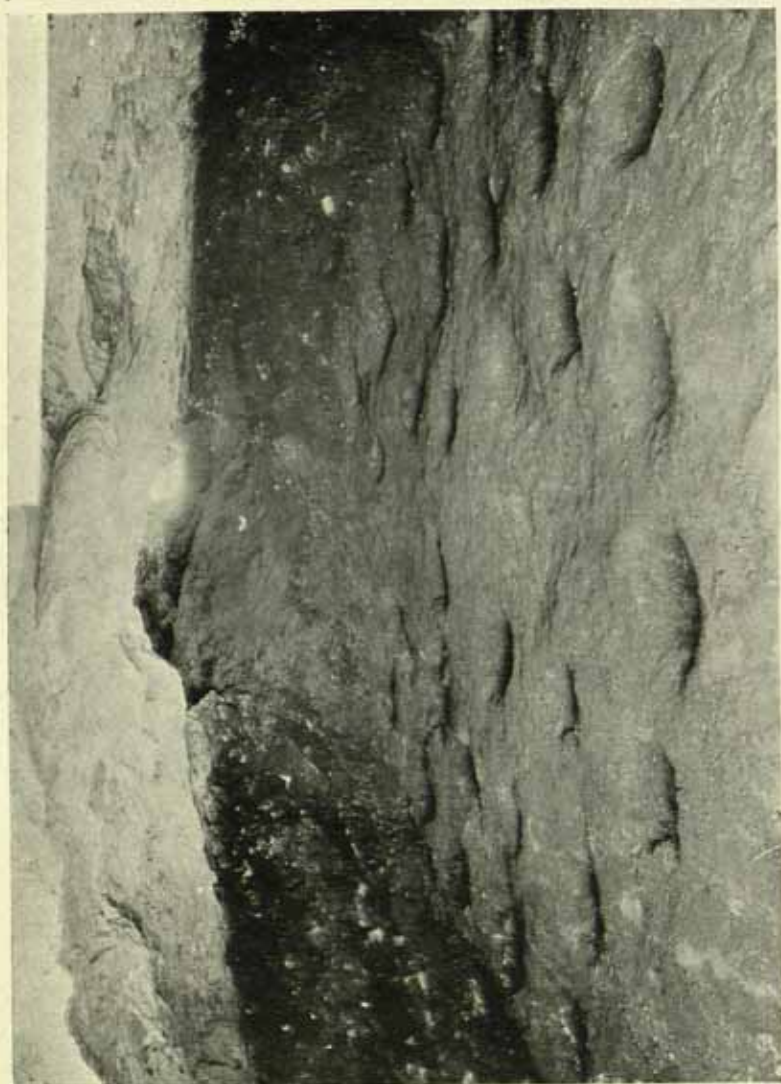


FIG. 2 (see Gezer, Fig. 39).

ceeding diagonally for some  $3\frac{1}{2}$  feet (cf. Fig. 2). The stones are laid without mud or mortar. In the angle which this wall forms with the side of the cave is a hollow, while there is another hollow in the northern end of the eastern extension of the chamber, just outside the narrow strip which is sunk somewhat lower than the floor of the main chamber and constitutes the most easterly part of the extension referred to. In this narrow strip are four more hollows. These six hollows would appear to form no part of the scheme of cup-marks

PLATE I



*(By kind permission of the Palestine Exploration Fund.)*

CHAMBER WITH CUP-MARKS.

*(From Gezer, Plate XXX, 2.)*

To face p. 31.





in the threefold horseshoe described above. Nothing was found in this chamber beyond some fragments of vessels with ledge-handles belonging to the very earliest times. A small gold rosette found just inside the entrance and resembling the two which were found in the earth covering the staircase at entrance A<sup>3</sup>, is of course referable to a later date.

Immediately south of this chamber is another of very irregular outlines. It measures about 33 feet from east to west, and from 10 to 15 feet from north to south. "About midway between the doorway between chambers (1) and (2), and the north-west corner of this chamber is the second external entrance to the system, A<sup>2</sup>."<sup>1</sup> It resembles the doorway A<sup>1</sup> but is higher; the approach to it consists of a curved downward sloping passage cut in the rock. North-west of this chamber is a narrow tunnel running in a north-westerly direction for about 8½ feet. There is a third external entrance to the system (A<sup>3</sup>). This entrance is an oval opening in the roof of this same chamber (2). It measures 9¾ by 2½ feet, and descent to the floor of the chamber, which is some 6¼ feet below, is effected by means of nine stone steps (cf. Plate II), the rise and tread of which average about 8½ to 9¼ inches respectively. The width of the steps increases as the floor of the chamber is approached, the top step being about 2 feet 2 inches wide, and the bottom about 4 feet 2 inches. The fine earth which buried this staircase contained a rich collection of objects, including a gold armlet, two gold rosettes, gold beads, a gold ring, carnelian, jasper, agate and paste beads, a silver pin, silver ornaments and ear-rings, fragments of bronze pins, and a number of scarabs.

Immediately at the foot of this stairway is a bell-

<sup>1</sup> Cf. Macalister, *Gezer*, p. 113.



shaped cistern. At some period this entrance was carefully built up, and was apparently afterwards used as a channel for conveying water into the cistern, as a square shaft, some 6 feet high, was built over it. The stones with which the doorway was blocked up were loosely laid, and the water could easily percolate through. The cistern, which is 24 feet deep, was not part of the original scheme. Some early water-pots were discovered sunk in the floor of the cistern.

In the middle of the west wall of the chamber there is a small circular hole which gives access to chamber (3), the maximum dimensions of which are 10 by 8 feet, the height being 4 feet 7 inches. The only object found in this chamber was a fine Pre-Semitic jar with ledge-handles and drip-line decoration [cf. Fig. 62 (12)]. At the western extremity of this chamber there is a tunnel which proceeds in a more or less westerly direction. Towards the beginning of this tunnel is a very narrow doorway, 2 feet broad,  $1\frac{1}{4}$  feet high, and 2 feet  $2\frac{1}{2}$  inches long. After passing this doorway, the tunnel ascends by steps into chamber (4), the floor of which is about 9 feet below the mouth of the tunnel, and the dimensions of which are about 25 by 17 feet. Access to this chamber was also originally gained by an independent entrance, which was subsequently built up. The floor was reached from this entrance by means of a stairway cut in the rock and proceeding spirally round the walls. This stairway comprised eleven steps, the bottom step of which is 3 feet broad with a tread  $1\frac{1}{3}$  feet wide and a rise 8 inches high. Lastly there is a circular bell-shaft in the roof. The walls of the chamber are cemented, the pile of stones with which the mouth of the tunnel was filled being also cemented over continuously with the walls. Potsherds were found in the cement, but

PLATE II

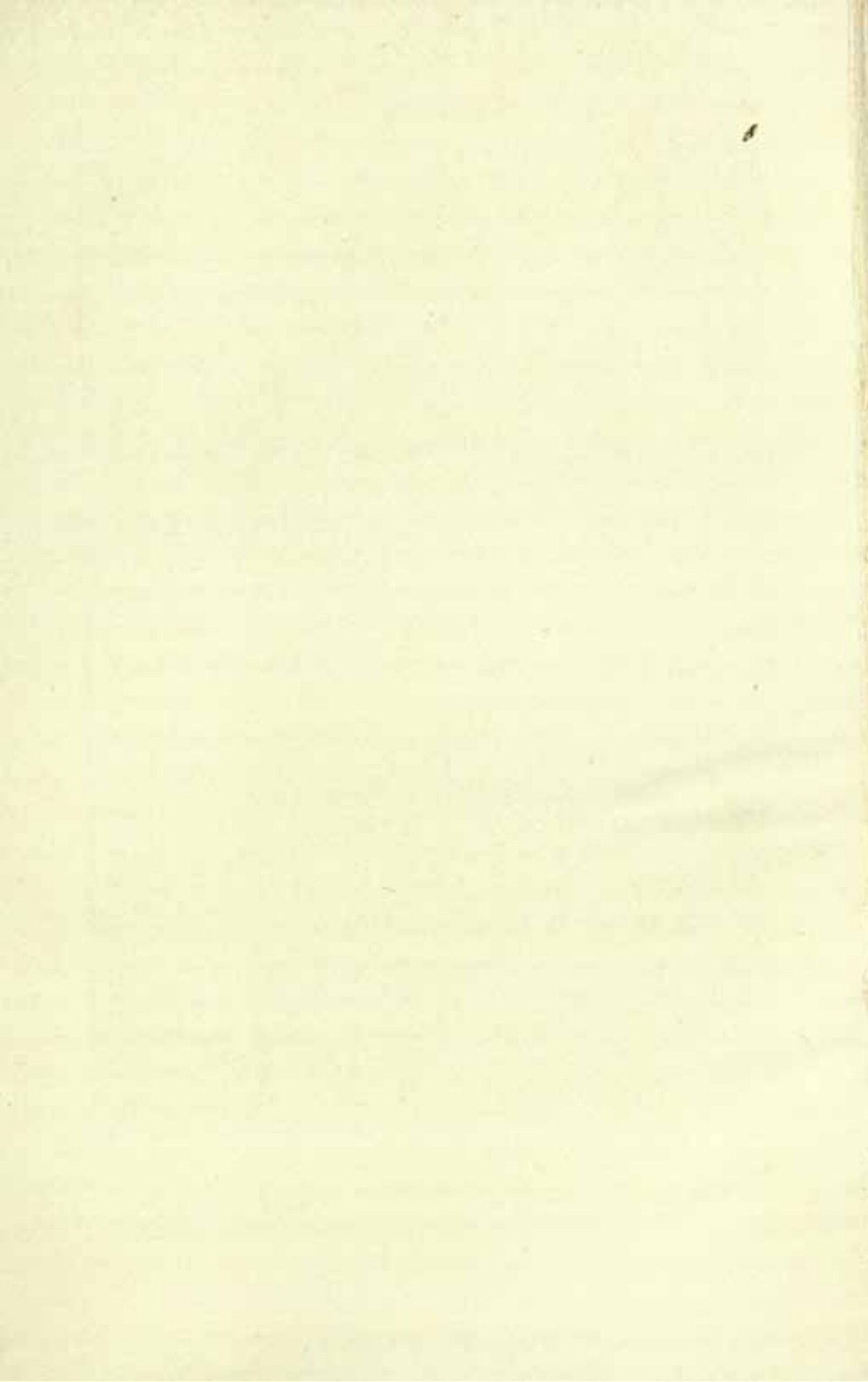


*(By kind permission of the Palestine Exploration Fund.)*

STAIRWAY ENTRANCE TO A CAVE.

*(From Gezer, Plate XXX, 3.)*

To face p. 34.





they afforded little or no information in regard to the date of the original excavation of this cave. Its use as a cistern is certainly of later date, and from the few objects discovered therein Macalister assigns its use as a cistern to about the middle of the fifteenth century B.C.

To return to chamber (2), east of the stairway descending from A<sup>3</sup>, it assumes the form of a wide passage, some 10 feet broad in its initial stage and 8 feet broad at its conclusion. This passage extends for some 26 feet. At its southern end, on the east side, there is another external doorway (A<sup>4</sup>), which is approached by a curved passage cut in the rock. This passage had been blocked up by a massive stone measuring  $4 \times 2\frac{1}{2} \times 1\frac{3}{4}$  feet, and probably a building was erected over the entrance. Just inside the doorway was another heavy block of stone measuring  $3\frac{3}{4} \times 3\frac{1}{4} \times 2$  feet, which together with a number of smaller stones offered a complete barrier to any further progress inside the cave. Behind these stones there is a low doorway, just over  $6\frac{1}{2}$  feet broad, which leads into a more or less circular cell, having a maximum diameter of 8 feet. In the middle of the floor of this cell is a circular shaft, 3 feet 7 inches in diameter, which descends vertically into a bell-shaped cistern. This cistern, which is 11 feet deep, shows tool-marks. The tool-marks here, as elsewhere in this system, indicate that flint implements were used and not metal. The débris with which the cistern was partly filled yielded fragments of very early pottery, some of which were painted, or ornamented with drip-lines, combed decoration, or rope-patterns incised or in relief. Other objects of interest were some stone weights, a clay spindle-whorl, a part of a hand belonging to a figure made of clay, and some roughly flaked flint knives.

South of this cistern there is a narrow door communicating with a small cell, the floor of which is somewhat lower than that of the cell out of which it leads. At the other end of this cell is a tunnel 48 $\frac{3}{4}$  feet long. This tunnel first of all proceeds in a south-easterly direction, then nearly due south, and finally nearly due east. It debouches on to a raised platform, in the centre of which is a circular vat, with a diameter of 2 feet 8 inches and a depth of 2 feet 3 inches. This raised platform forms the end of the northern stem of a large U-shaped chamber (5, 7), the general arrangement of which, and of the southern portion of this elaborate system can be more easily understood from an examination of the plan than from any description. North-east of the vat is a short passage following a north-westerly direction and leading into a more or less circular chamber (6). In the floor of this chamber a cistern has been sunk, the bottom of which is 30 feet below the surface of the rock and about 45 feet below the mouth of the cistern-shaft, which the late well-sinkers of the sixth or seventh century B.C., who are supposed to be responsible for this excavation, built through the superimposed débris.

This is by far the deepest cistern discovered at Gezer.<sup>1</sup>

The large chamber (5, 7) which Professor Macalister has aptly designated as the U-shaped chamber is the easternmost chamber of the system, and is at the same time the largest. It has apparently been the victim of an earthquake or some such catastrophe, for great masses of rock have fallen from the roof, and the removal of these was a necessary preliminary to the determination of the character and size of the

<sup>1</sup> Cf. Macalister, *Gezer*, p. 117.



chamber. It was found to contain a shallow pool, about 10 feet square. Three steps lead down to this pool, in the middle of which a shaft was cut. This shaft was found to communicate with another bell-shaped cistern. In that part of the roof which is over the pool were five vertical circular borings about 6 inches in diameter, the object of which was doubtless to admit the rain-water into the pool and subterranean cistern. This cistern contained a bronze pot that had apparently found its way in by accident. The northern part of this U-shaped chamber was used for sepulture like other chambers in the southern part of the system, as the discovery of a skull and human bones attested. At the south-east corner of this chamber was another external entrance, access from above being obtained by a flight of rude built steps (A<sup>s</sup>).

In the south wall of this chamber, and to the west of the entrance referred to, is a small low doorway opening into an irregular passage which leads into a chamber, which in its turn leads into another chamber, neither of which are of any particular interest. In the passage was a large jar containing a few bones, a few vessels, and a lamp.

In the floor of the southern arm (7) of this easternmost chamber were a few shallow pits, the object of which is uncertain. At the western end of (7) a step with a rise of 2 feet, and a doorway 3 feet high, 3 feet broad, and 4 feet long, led into chamber (8). These two chambers [(7) and (8)] yielded a very rich harvest of archæological material in the shape of pottery and other objects.

Chamber (8) is furnished with an independent vertical roof-shaft entrance,  $3\frac{1}{2}$  feet long with a diameter of 3 feet 2 inches, and having three "toe-holds" on its south side. The distance between the lower orifice of



the shaft and the floor of the cave is about  $5\frac{1}{2}$  feet. South of the chamber there is a doorway  $1\frac{1}{2}$  feet high and  $2\frac{3}{8}$  feet broad, which opens into a narrow passage leading into a narrow cell of no particular interest.

In the south-west corner of (8) is a passage some 16 feet long, tapering in height from 5 feet 2 inches to 2 feet 3 inches, and in breadth from 12 feet to 2 feet 2 inches. At the end of this passage is a small doorway  $1\frac{1}{2}$  feet in height and breadth, which opens into a small oval cell (9),  $4\frac{1}{2}$  feet high, and measuring 7 feet from north to south and 9 feet from east to west. At the farther end of this chamber is a narrow entrance-passageway,  $1\frac{1}{2}$  feet long, 1 foot 8 inches broad, and  $1\frac{1}{2}$  feet high, leading into a small cell measuring 2 feet 8 inches in length, 2 feet 4 inches in breadth, and 3 feet in height. At the end of this cell there is a narrow hole which communicates with chamber (10), the last in the system. This chamber is 30 feet 9 inches long, the greatest breadth being some 16 feet.

The deposits in chamber (7) comprised a valuable collection of pottery, some inlaying strips of ivory, a horn adze [cf. Fig. 38 (1a, b)], a scarab, a gold-mounted bead, and a bronze pot. Some of the jars contained the bones of infants, around which various vessels were arranged.<sup>1</sup> One jug contained various odd bones, some of which belonged to children and others to adults. The human bones found here and elsewhere in the caves all belong to the early Semitic type.

Chamber (8) contained another valuable series of pottery, and also a number of alabaster vessels, some scarabs, and a bronze gilt pin. At the mouth of the narrow passage to the south of chamber (8) two bronze

<sup>1</sup> Cf. Macalister, *Geser*, p. 122.

spear-heads were recovered, as well as some beads and scarabs.

Chamber (9) was empty, apart from a few fragments of a tibia, showing that at all events one person had been buried here. A considerable number of potsherds in early drab ware, some of which were covered with whitewash and decorated with red drip-lines, were discovered in chamber (10). Some of the fragments had ledge-handles attached to them. The deposits in this chamber further comprised stone rings, shells, needles made of the bones of cranes, a stone corn-rubber, and a bronze punch.

Apart from the flint implements which were found in both divisions of this labyrinthine cave, the alabaster vessels, and the large collection of stone beads, the principal stone objects found are a black slate vessel, a rectangular diorite tray, a peculiar stone object which resembles a pedestal,<sup>1</sup> and two stone dishes, the larger of which has a diameter of just over a foot [cf. Fig. 40 (17)]. The other, which stands on three feet, was of particular interest, as a hemispherical pebble was found with it, showing that this dish (the surface of which was flat) was used for grinding purposes.

The metal objects were all personal ornaments with the exception of the two spear-heads, the bronze punch, and the bronze pot found in the cistern in chamber (7), to all of which reference has been made.

The most remarkable ornaments in gold are an armlet (see p. 212), three rosettes, three beads, and two finger-rings.

Apart from scarab-mounts, the only objects in silver are a looped hairpin, two pendant crescents, and a pair of ear-rings [see Fig. 60 (15)—(18), (23)].

Ornaments in bronze are scarce, generally in a frag-

<sup>1</sup> Cf. Macalister, *Geser*, i, p. 137, Fig. 45.



mentary condition, and of comparatively little interest, portions of hairpins and scarab-mounts being the principal objects discovered. Reference has already been made to the bronze gilt pin discovered in chamber (8) [see Fig. 51 (6)].

There are two bone objects of special interest, the horn adze mentioned above, and an inlay of peculiar shape,<sup>1</sup> both found in chamber (7).

The principal objects in ivory are a number of inlays (see further, p. 153 f.). A large number of beads were found, showing great variety in size, form, and material. The principal materials used are agate, jasper, carnelian, and crystal.

Three cylinders were brought to light, two made of green enamelled paste, and the third of a brown-coloured stone; the first two were purely ornamental, but the third was apparently used as a seal, its field being occupied with palm branches, zigzag and vertical lines, and crescents.

This cave yielded a rich collection of scarabs, most of which came from chamber (8). The materials used are carnelian, green serpentine, greenish basalt, steatite, amethyst, crystal, limestone, and paste. The mounts are generally made of gold, the rings themselves being either gold, silver, or bronze.

The pottery is divisible into two main series, the first series belonging to the early period, when the cave was used for secular purposes, and the second to the period when it was used as a burial-place. Of the first series, the only complete vessel recovered is the fine jar found in chamber (3)<sup>2</sup> which has already been mentioned [see further, p. 222 and Fig. 62 (12)]. The water-pots found in the cistern in chamber (2) are probably later, but antedate the interment period.

<sup>1</sup> Cf. Macalister, *Gezer*, iii, Plate XXXVI, Fig. 5.



By far the larger portion of the pottery unearthed belongs to the interment period. It is impossible to give a description here of all the manifold types of vessel recovered, most of which will be noted in the chapter on "Pottery"; suffice it to say that the specimens comprise jars, jugs, bowls, and lamps, and form a most valuable collection for the purposes of archæological study, and also for the reconstruction of the varied history of the cave itself.<sup>1</sup>

The tool-marks afford little indication as to the direction in which the excavators were proceeding, but that the whole excavation was not carried out at the same time, or by the same people, may be regarded as certain. The number of independent external entrances to the system in itself suggests that originally the chamber, or series of chambers, to which they respectively gave access, were not all connected, while the narrow passage which connects chambers (3) and (4) and the long tunnel connecting chamber (2) with chamber (5) and thereby with the whole of the southern part of the system, indicate three groups originally separate, the first group—chambers (1), (2), and (3), the second chamber—(4), and the third—chambers (5)–(10). It is supposed that originally a family or clan occupied each group, and then, either as the result of intermarriage or an alliance of some description, these families joined their subterranean apartments by means of a tunnel or passage.

It seems fairly certain that the people occupying chamber (5) are responsible for the excavation connecting their premises with the (1) group of chambers, for the tunnel leaves (5) quite naturally, contracts as it proceeds and enters the (1) group by a most awkward hole. Had the excavation started at the other end, it

<sup>1</sup> Cf. Macalister, *Geser*, i, pp. 137 f.

is inconceivable that the quarryers should have passed all the excavated material from the tunnel through this hole. That a tunnel made by the people of (5) should, on the other hand, contract as it advanced, the excavated material being easily removed through the large entrance, is exactly what one would expect.

In regard to the tunnel connecting chambers (3) and (4), the probable solution is that the excavation proceeded from both ends, the workmen meeting in the middle, for if the whole work had been carried on from chamber (3) it would have involved the removal of all the excavated material through the narrow doorway at the end of (3), whereas if the excavation had been the entire work of the people of chamber (4), it is difficult to account for the sudden drop in the middle of the tunnel, as the tendency would be to ascend rather than descend as the excavation proceeded. If, on the other hand, the work was undertaken from both ends at the same time, the change of level would find its natural explanation in a miscalculation on the part of one or other or both of the sets of workmen.<sup>1</sup>

The cave no doubt had its origin in Pre-Semitic times, chamber (1) being almost certainly the work of the Troglodytes, or cave-men. Pottery of the earliest type was found in the earth covering the cup-marks in this chamber, and no later objects were discovered in connection therewith. Various explanations have been suggested as to the use of the cup-holes in this remarkable chamber. It has, for example, been thought that the cup-holes served as stands for large jars, but the careful arrangement of the holes in the triple horseshoe and the obvious significance of the number of cup-holes in that horseshoe, militate against that theory. We

<sup>1</sup> Cf. Macalister, *Geser*, i, p. 138.



cannot say why the number of cup-holes contained in each of the three rings is a multiple of three, but that this arrangement was intentional is clear for the reasons given above (cf. p. 32).

A more plausible hypothesis is that this system of cup-marks was specifically connected with some religious rites or practices, and that possibly the whole floor of this chamber constitutes a table of offerings.

In the next stage of its history the cave was occupied by Semites. They did not live in the cave but utilized its various chambers as cellars, store-rooms, cisterns, or refuges from the heat of the sun. It is certain that the inhabitants of the houses built over the northern system, used the chambers in this way.<sup>1</sup>

The third period is that in which the southern system was used as a burial-place. There is no evidence that the northern system was ever used for interments, and at or about the time when the southern system was converted to this use, the owners of the northern system blocked up the passage which communicated with the southern system, a precaution dictated, no doubt, by a fear lest the spirits of the deceased should escape from the *Sheol* in which they were imprisoned, and cause them discomfort or harm.

After the southern system was adopted as a cemetery the northern system was apparently little frequented, and on that account commended itself not unnaturally as a fitting place for hiding treasures. Hence the rich deposit discovered in the débris which covered the lower part of the staircase descending from entrance A<sup>3</sup> in chamber (2).

The scarabs found in the southern system belong for the most part either to the time of the Twelfth Dynasty or to that of the Hyksos, and the interments, as a

<sup>1</sup> Cf. Macalister, *Gezer*, i, p. 139.



whole, may accordingly be assigned to the last-named period, i.e. somewhere from 1800 to 1600 B.C.

Another cave<sup>1</sup> at Gezer of exceptional interest is that of which a plan appears in Fig. 3. It lies beneath some 36 feet of débris containing eight different archæological strata. Of these eight, three are later than the destruction of the inner city wall about 1450 B.C., the three next strata are contemporaneous with this wall, and therefore lie between the date of its erection,

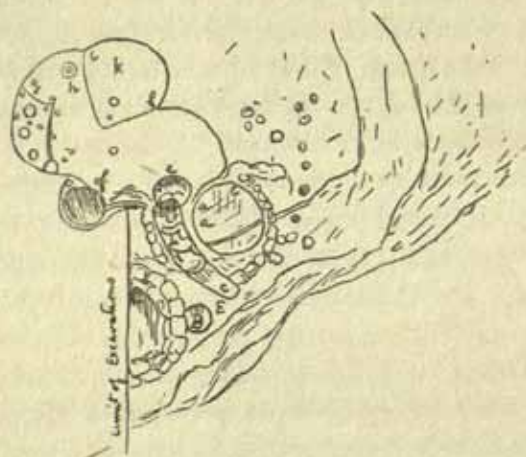


FIG. 3 (see *Gezer*, Fig. 47).

about 2500 B.C., and the date of its destruction about 1450 B.C.; the two lowest strata antedate the wall.

The cave is hollowed out in the "south end of a small knoll in the rock which rises fairly steeply to a height of about 3 feet above the rock-surface surrounding it." The entrance to the cave (E) consists of a long narrow passage, the floor of which slopes downward, and the floor of the cave is reached by means of a flight of very rude steps cut in the rock. The cave itself is more or less oval, with "a series

<sup>1</sup> Cf. Macalister, *Gezer*, i, pp. 143-52.

of irregular apses round the sides." Its total length is 16 feet 7 inches, and its height about 5 feet 5 inches. Just under the entrance is a hollow (*e*), which is in fact cut partly out of the staircase, and measures 3 feet across and 1 foot 10 inches in depth. This and the similar hollow (*f*), which lies to the left of the staircase, and is connected with the staircase by a channel cut in a projecting piece of rock, are apparently meant to intercept the rain-water and prevent the cave from being inundated. The hollow (*f*) measures 3 feet 11 inches across and is 3 feet deep.

Part of the floor in apse (*g*) is raised 10 inches above the floor of the cave, and in this raised step are three shallow cups measuring from 10 inches to 1 foot 1 inch across, and five smaller holes. In the same part of the cave are seven other cup-marks, one of them (*h*) being a double cup (i.e. a cup with another cup sunk in its floor) and having a maximum diameter of 1 foot 9 inches.

The floor of apse (*k*) is sunk 10 inches below the floor-level of the cave, and contains three cup-holes. In the centre of the cave there is another cup-hole. In the projecting piece of rock marked (*l*) is a hole, supposed to have been used for tethering cattle.<sup>1</sup>

Around the mouth of the cave are various cuttings, namely three hollows, one of which is situate close to the entrance passage. It is circular in shape, has a diameter of 6 feet and a maximum depth of 1 foot below the original rock-level. At *aa* the rock fails, and masonry supplies the deficiency. A curved wall, *cc*, partly surrounds the hollow. This hollow is doubtless an olive-press or a wine-press. The second hollow (*B*), which is 3 feet 3 inches across and 2 feet deep, has vertical sides and a round base. It lies partly under a circular wall

<sup>1</sup> Cf. Macalister, *Geser*, i, p. 145.



which surrounds the third and largest hollow. This hollow has a diameter of 7 feet and is 1 foot 6 inches deep.

To the east of the cave are thirteen cup-marks, some of which are shallow circular basins, the diameter of which is greater than their depth, while in the case of others the depth exceeds the diameter. The remaining cup-holes are oval depressions.

The largest of these cups is 2 feet across and 9 inches deep, and the deepest, which lies immediately under the wall surrounding the fruit-press has a depth of 1 foot 2 inches. The lower 4 feet of the walls of the cave are rough, but above this height is a frieze of smoother rock which is occupied with rude scribblings, a few such scribblings also appearing on the roof.

These graffiti fall into three main classes: (1) arrangements of lines, (2) arrangements of dots, and (3) drawings of animals. The lines are generally grouped at random, but in some cases they cross vertically and horizontally chess-board-wise. The dots are in most cases arranged in squares of four, or a row of three dots with a circle of dots surrounding them. Perhaps the latter design is to be regarded as a degenerated spiral, for some of the graffiti consisted of dots arranged so as to actually form spirals.

The drawings of animals are mostly of a very primitive character, the body being represented by a rectangle, the legs by four downward strokes, and the head by an upward stroke. Some examples, however, are much more true to life, as will appear from Fig. 4. This is the most artistic of all the graffiti. The cow is fairly well executed, the only point calling for special notice being the knobs on the tips of the horns, from which we may perhaps infer that the Troglodytes were



in the habit of protecting themselves from their half-wild cattle by tying knobs on their horns.<sup>1</sup>

In Fig. 5 three animals are represented in a vertical row; the uppermost is remarkable for its long horns; the middle animal is the best of the three, while the third is defaced with scratches. In the next figure we see a buffalo, as is clearly indicated by the size and shape of the horns.



FIG. 4.



FIG. 5.



FIG. 7.



FIG. 6.

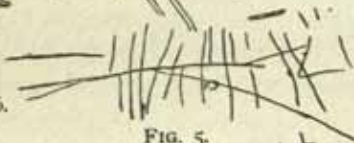


FIG. 9.

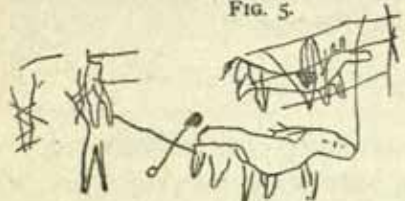


FIG. 8.

In Fig. 7 a stag is represented as being killed with a bow and arrow. The vertical lines in front of the stag are perhaps meant for trees or long grass. Unfortunately the huntsman himself is not represented.

In the remarkable group represented in Fig. 8 we have a man or perhaps two men apparently engaged in driving or ploughing with two animals.

Lastly mention should be made of the human

<sup>1</sup> Cf. Macalister, *Geser*, i, p. 149.

foot-print seen in Fig. 9. It is delineated with very great care, the toes are separated and have square ends. It may date from the time of the Egyptian occupation, when this ancient cave was perhaps adapted as a cellar of a house built above it.<sup>1</sup>

As has been already indicated, very few of the Troglodyte caves have remained undisturbed, the majority of them having been subsequently used by Semites as cellars, store-rooms, treasure-houses, or burial-places. The result is that the remains of the period when the cave was used as a place of habitation are in numerous cases found alongside of the objects in use during one or other of the Semitic periods.

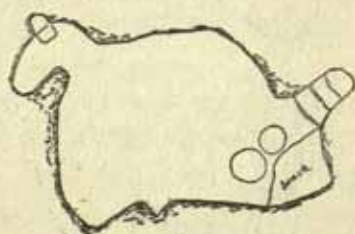


FIG. 10 (see *Geser*, Plate XIII, 11).

There are, however, a few exceptions to this generalization, the cave represented in Fig. 10 being an undisturbed Troglodyte dwelling.<sup>2</sup>

Access to this cave is obtained by means of a badly made staircase. The main chamber is irregular in shape and measures about  $30\frac{1}{2}$  feet in length, and the maximum height is 7 feet  $2\frac{1}{2}$  inches. On the left-hand side of the entrance is a raised platform, in front of which are two pits, one 6 feet deep and the other  $1\frac{1}{2}$  feet deep. On the north side of the chamber is an opening which leads into a smaller chamber, at the end of which there is a short, blind tunnel, the floor of

<sup>1</sup> Cf. Macalister, *Geser*, i, p. 149.

<sup>2</sup> Cf. *ib.* i, p. 143.



which is 1 foot 2 inches below the floor of the chamber. The height of this tunnel is  $2\frac{1}{4}$  feet and the length is  $5\frac{1}{2}$  feet. A quantity of flints and potsherds were discovered in this cave, but no whole vessels and no bones—with the exception of a buffalo's horn. The pottery remains included examples of yellowish-brown ware decorated with red lines, and brown ware with black lines.

In regard to the numerous caves found at Tell Zakariya, Tell Sandahannah, Bêt Jibrin, and other sites in the Shephelah region, there is little or no evidence that they were used as dwelling-places by the Pre-Semitic population, though in many cases, where there is no other obvious use which the caves can have served, it is reasonable to assume such to have been the case. Some of them were certainly used as temporary places of refuge if not as permanent places of abode at some period, for in the *souterrain* at Tell Zakariya some of the doorways were arranged for the doors to be bolted on the inside.

Many of the caves in this region exhibit tool-marks, the majority of which cannot have been made except by metal chisels. In such cases they cannot of course have been made by the Neolithic Troglodytes, who only had flint weapons at their disposal.

At Tell Sandahannah there are some four hundred caves grouped together in about sixty sets. The chambers are as a rule more or less circular in shape and have a diameter of from about 39 to 48 feet. The walls curve inward, the roof being dome or bell-shaped. There is usually only one entrance, which consists of a hole in the roof. In the majority of cases safe access from the opening in the roof to the floor can only be gained by means of a rope, and in these cases the caves can hardly have been used as habitations.



Some dome-shaped caves are furnished with side-entrances at or near the floor, which admitted either to the outside or to another chamber. When there is a side-entrance, the hole in the roof was frequently closed up.

In many of the larger caves, however, a spiral staircase cut in the rock led from the roof to the floor.

These staircases occasionally have parapets measuring about 6 to 8 inches in thickness, and about 29 to 36 inches in height. The tops of some of the parapets are stepped downward following the line of the staircase. Stepped parapets of this description are only found at Tell Sandahannah.

Some dome-roofed chambers are oval or even square in plan. Other chambers again have vertical sides and flat roofs.

When chambers were so large that the roof required support, "pillars were left here and there uncut from the solid rock to support it."<sup>1</sup> These pillars are generally either square or oval, the square pillars usually standing in the centre of the chamber, while the oval pillars were generally arranged in a rough circle round the chamber.

The passages which connect the chambers of a system vary in length from about 10 to about 114 feet; some can be traversed upright, others only by stooping. In almost every chamber are small triangular niches, used, it is thought, for lights, which these dark subterranean rooms and passages would, of course, obviously require.

That wooden structures, doors, or partitions were used is proved by the discovery of mortices or sockets which must have once held beams. In addition to doors there are occasionally square windows cut in the rock wall dividing two chambers. Cup-marks are

<sup>1</sup> Cf. Bliss-Macalister, *Excavations in Palestine*, p. 207.

frequently found in close proximity to the mouths of caves, and it has been noted that at Tell Sandaḥannah there is no instance of a cup-mark above-ground which is not thus associated.<sup>1</sup>

In many of the caves at Tell Sandaḥannah, the roof of chambers and passages is near the upper surface of the rock, and in order to strengthen it, masonry consisting of limestone blocks trimmed with a metal

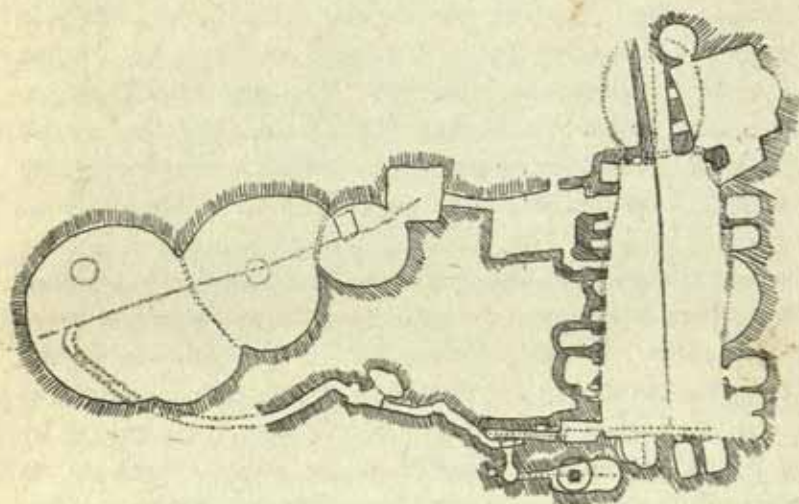


FIG. 11 (see Bliss-Macalister, *Excavations in Palestine*, Plate 99).

chisel was employed. The roofs are built with a true arch having radiating voussoirs.

One of the most interesting of the rock-cuttings in the Shephelah (cf. Fig. 11) is to be found at Khurbet el-'Ain.<sup>2</sup> Its main feature, a spacious hall some 46 feet long and about 18 feet broad, which was apparently at one time divided into two by a partition, is approached by an open passage, sloping downwards and about

<sup>1</sup> Cf. Bliss-Macalister, *Excavations in Palestine* p. 213.

<sup>2</sup> Cf. *ib.* p. 229 f.



21 feet 9 inches long. The sides of the passage, originally parallel, are now concave as the result of weathering.

The entrance to the hall is some  $5\frac{1}{2}$  feet wide. The floor of the chamber is silted up with earth to the height of 2 to 3 feet, the maximum height of the vaulted roof above this earth being about 11 feet 10 inches.

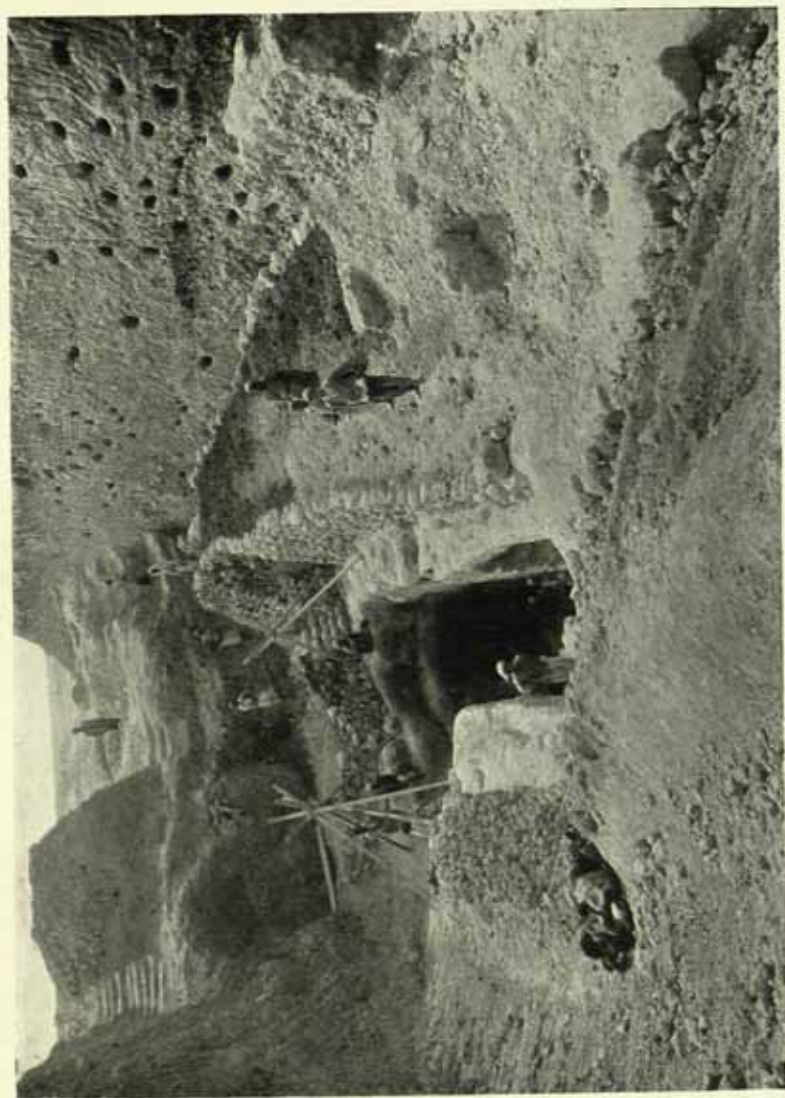
Around this hall there is a series of rooms, one of which is connected by a gallery with a system of bell-shaped chambers. In one corner of this room there is a short passage, at the end of which is a flight of steps leading to two long galleries. There is also a double doorway about 32 inches high, which admits to an irregular chamber measuring about 17 feet 9 inches by 16 feet 10 inches and having a maximum height of about 5 feet 9 inches. The pivot-holes of this door may still be seen. In an apse-like recess in this room there is a cupboard or safe some 16 inches high and 14 inches deep. The sides of this cupboard converge upwards, the breadth being about 16 inches at the bottom and just over 12 inches at the top. It was apparently closed by a board, tied to a tether-hole in the rock to prevent its being lost or removed, the board being kept in position by a sliding beam that fitted into sockets at each end.

A shaft sunk through the floor of this cupboard revealed three burnt strata separated by clay, and therefore representing three different periods of occupation; upon the rock floor below was a stone platform. This platform is 8 feet 5 inches beneath the floor of the cupboard.

A staircase of twenty steps<sup>1</sup> leading from the top of the staircase is blocked, but it apparently led into the

<sup>1</sup> In one stepped bell-chamber at Tell Sandahannah there is a flight of sixty steps, while in another the steps number fifty-two (Bliss-Macalister, *Excavations in Palestine*, p. 251).



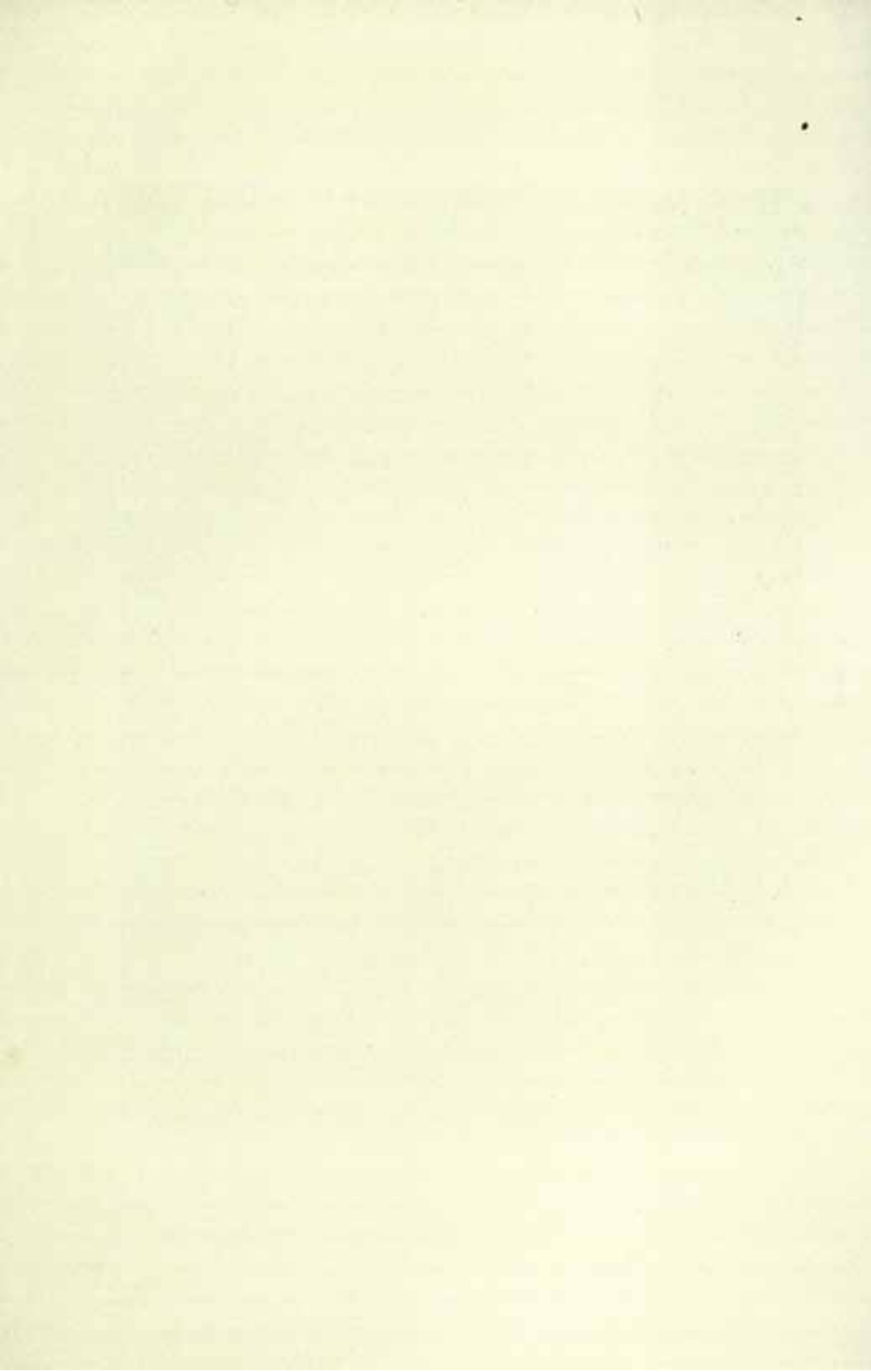


(By kind permission of the Palestine Exploration Fund.)

ENTRANCE TO WATER-PASSAGE.

(From Gezer, I, Fig. 132.)

To face p. 92.



open air. The steps measure from about 5 to 8 inches in tread,  $6\frac{1}{2}$  to 8 inches in rise, and from about 1 foot to 1 foot 8 inches in length. Unlike most of the staircases in these caves, it is straight.

The caves at Bêt Jibrîn are of comparatively little interest except for their enormous size, the cave at 'Arâ el-Mâk, for example, consisting of two gigantic chambers each over 130 yards long. These chambers, which are now roofless, were surrounded by smaller chambers. The latter, however, were so large that their domes required the support of massive pillars. In passing, it is noteworthy that a spring of water was found in this cave.

The great *souterrain* at Tell Zakariya<sup>1</sup> consists of two large apartments, from which various systems of chambers radiate. From the first apartment three systems lead off, while from the second there are no fewer than eight exits.

A stepped bell with dome-and-side entrance, also discovered at this site is worthy of note on account of its enormous height, the chamber having a diameter of only about 26 feet 8 inches, while its height is some 29 feet 9 inches.

Probably the most striking of all the rock-cuttings discovered in Palestine is the great water passage at Gezer (cf. Plates III-V).<sup>2</sup> This tunnel is 219 feet long, and entrance thereto is gained by means of a "keyhole-shaped sinking in the rock" (cf. Plate III), measuring  $34\frac{1}{2}$  feet in length on its western side, which is "a straight perpendicular scarp 7 feet 5 inches broad at the northern end and 14 feet 6 inches at the southern." The roof of the tunnel is cut to a barrel vault, and a flight of steps is cut in the floor.

<sup>1</sup> Cf. Bliss-Macalister, *Excavations in Palestine*, p. 217 and Plate 94.

<sup>2</sup> Cf. Macalister, *Gezer*, i, pp. 256 ff.



The dimensions of the tunnel in its initial stages are considerable, the height of the arched entrance being some 23 feet and the width 12 feet 10 inches, but for the last third of the course, where the rock is much harder, its dimensions contract considerably.

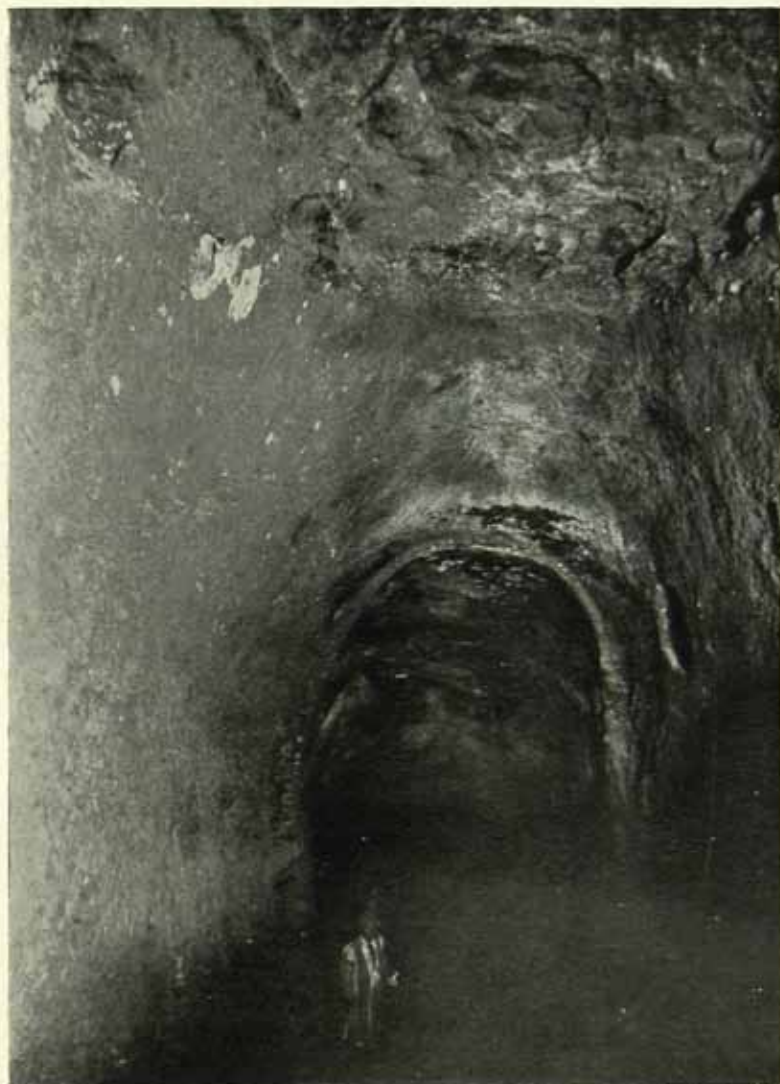
The staircase terminates at a pool, the depth of which the excavators were unable to fathom. This rock-spring lies 94 feet 6 inches below the surface of the rock and about 130 feet below the present ground-level. At the bottom of the steps two small lumps of iron were found, which Professor Macalister says<sup>1</sup> offer the "closest evidence of the use of iron in Palestine." They must, of course, have fallen in with other refuse after the cave had been abandoned. The tool-marks are well preserved in the upper part of the tunnel, especially about the roof,<sup>2</sup> and demonstrate that the excavation was made by means of flint implements. The downward slope of the roof continues for some distance beyond the termination of the staircase, and approaches so near to the surface of the pool that it is necessary to stoop low in order to pass through. It then rises again, and the excavation ends in a long narrow cave, 80 feet long and 28 feet broad. The entrance to the cave had become almost entirely blocked up by débris, and it was clear that the cave had suffered from earthquake shocks. The conclusion at which Professor Macalister arrived in regard to the origin of the cave was that it was of entirely natural formation.

The entrance to the tunnel had become closed by an accumulation of silt-like earth which contained various objects belonging to the Third Semitic Period. The tunnel must therefore have been abandoned somewhere about 1450-1250 B.C. This of course only gives us a

<sup>1</sup> Cf. *P.E.F. Q. S.*, 1908, p. 101.

<sup>2</sup> Cf. Macalister, *Geser*, i, p. 259.

PLATE IV



*(By kind permission of the Palestine Exploration Fund.)*

THE WATER-PASSAGE LOOKING DOWNWARD.

*(From Gezer, I, Fig. 133.)*

To face p. 34.





lower limit for the date of the excavation, but from the dilapidated condition of the steps in the tunnel Professor Macalister computes that it must have been in use at least some five hundred years, and that accordingly the tunnel cannot have been cut later than 2000 B.C.

The question as to who are responsible for this remarkable feat of primitive engineering is one to which Professor Macalister says "no answer is forthcoming."<sup>1</sup> He suggests that the work may have been designed by some Egyptian overlord, or by a Babylonian king, but points out that in such case we should expect to find more definite traces of Egyptian or Babylonian house-building throughout the city. No doubt the absence of any inscription or any object in the tunnel betokening foreign influence (apart from such objects as had obviously silted in by accident) may be used as a negative argument against the ascription of a foreign origin thereto; but as on any theory none of the objects discovered in the water-passage have any radical connection with the excavation, the same argument might be used, though perhaps with less force, against any proposed solution of the problem. In any event, while admitting that the argument is not entirely negligible, it is purely negative and, to say the least, somewhat academic in character, and it could at best only be adduced as cumulative evidence.

There is, however, another argument against its being (a) the work of Egyptians or Babylonians, which, *primâ facie*, appears stronger, and that is the argument based on the evidence of the tool-marks. The implements which were used in the excavation of this remarkable tunnel were made of flint, and this fact at once suggests that the work was executed by the Neolithic Troglodytes.

<sup>1</sup> Cf. Macalister, *Geser*, i, p. 262.

Even this argument, however, is not as convincing as it might seem, for it has been shown<sup>1</sup> that tombs at Thebes in Upper Egypt were dug out by means of tools made of chert (a silicious mineral, allied to flint), and that therefore, although the use of metal was known in Egypt centuries before the excavation of this tunnel, stone implements were employed in Egypt for non-ceremonial purposes long after this water-passage was cut, on any theory of its date.

We must accordingly be content to await further evidence before pronouncing on the matter.

#### CISTERNS, FRUIT-PRESSES, AND OTHER ROCK-CUTTINGS.

Some of the more remarkable caves used by the Pre-Semitic inhabitants of Palestine as dwelling-places have been already described, while those which are chiefly interesting for the religious or sepulchral purposes which they served will be considered in later chapters.

There remain, however, a large number of rock-cuttings which cannot be classified under any of these three heads, and which comprise quarries, cisterns, wine- and olive-presses, and places for storing grain, as well as a considerable number of cup-marks which cannot have formed any part of the paraphernalia of the worship of the gods or the cult of the dead.

The quarries<sup>2</sup> consist of "superficial scarps," which generally do not exceed 1 foot 3 inches in height and about 9 feet 9 inches in length. The width of the stone block removed averages about 1 foot 6 inches to 3 feet 3 inches. It appears from the evidence that very little quarrying was done, and that the quarries

<sup>1</sup> Cf. Budge, *Egypt and the Sūdān*, 1906, p. 661.

<sup>2</sup> Cf. Bliss-Macalister, *Excavations in Palestine*, p. 188.

PLATE V



(By kind permission of the Palestine Exploration Fund.)

THE WATER-PASSAGE LOOKING UPWARD.

(From *Gener*, i, Fig. 134.)

To face p. 36.





in question were only used when field-stones—the material ordinarily used for building purposes—were not found in sufficient numbers, or were not of the requisite size.

The shape and dimensions of stones removed, suggest that these small surface quarries were the sources of the long slabs of stone, wherewith entrances to tombs were covered and narrow rooms and passages were roofed.

A number of the larger rock-cuttings were undoubtedly intended for cisterns, but in some cases it is difficult to say whether they served as cisterns or as fruit-presses. Generally speaking, where the diameter of the excavation exceeds the depth, the hollow is probably to be regarded as an olive-press or wine-press; where, on the other hand, the depth is greater than the diameter, the hollow probably served as a cistern, or at all events was made for that purpose.

In some cases the use of a cavity as a cistern is demonstrated by rope-marks frayed on the soft limestone round the mouth. These must have been made by the ropes with which water-pots were lowered into the cistern and raised when full.

In cases where the dimensions afford little indication as to the nature of an excavation, the absence or presence of cup-marks in or around the hollow, the existence of other cavities in connection with or in proximity thereto, and further considerations of that character may be some guide.

Cisterns are very numerous, and indeed it would appear that each group of houses had a cistern; as a rule, previous cisterns were discarded and new cisterns were cut by each successive generation. It was probably one of these discarded cisterns into which Jeremiah was cast (cf. *Jeremiah* xxxviii, 6).

They were frequently cut in the sides of the hills, and some artificial device was doubtless employed to direct the water which drained off the hill, into the cistern. The general type remained the same throughout. "A bottle-shaped excavation, generally circular, sometimes square in plan, is sunk in the rock to a depth of about 16 to 23 feet."<sup>1</sup> The diameter of the floor varies from about 11 to 26 feet, and the sides are sometimes vertical, sometimes conical (the bottom of the cistern forming, as it were, the base of the cone). The orifice is uniformly circular, and nearly always in the middle. An exceptionally large cistern of the ordinary type was discovered at Gezer;<sup>2</sup> it is 30 feet deep, and the diameter of the floor is 28 feet 5½ inches. The entrance is covered by a large stone slab 7 feet 2 inches long, 2 feet 5½ inches broad, and 1 foot 4 inches thick.

Many of the Troglodyte caves were subsequently converted into cisterns as we have already had occasion to observe. Not infrequently a cistern has steps leading down to the water below, and a number of these stepped cisterns have been discovered at Tell Zakariya, Jerusalem, and elsewhere. The presence of steps is, however, in itself no special indication that the excavation in which they are found was used as a cistern. In point of fact steps would (*ceteris paribus* and in the absence of other indications) rather suggest that the hollow thus provided was used as a store-place for corn or fodder, which could not be drawn out like water. Cisterns with vaulted roofs are also not uncommon, but no doubt in some cases the roof was not made at the same time as the excavation of the cistern.<sup>3</sup>

One of the most remarkable cisterns as yet discovered is the cistern in Wa'ret Salâmeh, illustrated in

<sup>1</sup> Cf. *Gezer*, i, p. 268.

<sup>2</sup> Cf. *ib.* i, p. 271.

<sup>3</sup> Cf. Bliss-Macalister, *Excavations in Palestine*, p. 21.



Fig. 12.<sup>1</sup> The lower part is bell-shaped, then there is an intermediate square portion, while the mouth of the cistern is conical. It is 15 feet deep, and the floor is 13 feet 8 inches in diameter. In addition to the opening in the top there is another mouth connected by steps with the side of the neck.

Professor Sellin's excavations beneath the building of Ishtar-washur at Taanach have also afforded a good example of the later adaptation of a cave for a cistern.<sup>2</sup>

At Gezer and elsewhere, in addition to the numerous<sup>3</sup> cisterns, a few masonry reservoirs were discovered,

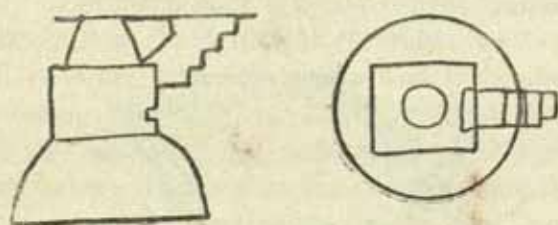


FIG. 12 (see *Gezer*, Fig. 140).

all of which belong to the Hellenistic Period (see further, p. 134 f.).

Many of the rock-cuttings in Palestine were undoubtedly used for fruit-presses, either for the extraction of oil from olives, or juice from grapes.<sup>4</sup> The antiquity of the industry of fruit-culture is amply attested by the existence of presses cut in the rock before any houses were built thereon, and which in several cases are associated with the caves of the Troglodytes, while in one instance a vat was actually found in one of these

<sup>1</sup> Cf. *Gezer*, i, p. 273.

<sup>2</sup> Cf. Sellin, *Tell Ta'annek*, p. 37 f.; *Eine Nachlese*, p. 7 f.

<sup>3</sup> Cf. Bliss-Macalister, *Excavations in Palestine*, p. 21.

<sup>4</sup> Cf. *ib.* pp. 56, 197; *Gezer*, *passim*, and especially ii, pp. 51 ff.

cave-dwellings.<sup>1</sup> The earliest presses were quite possibly used both for olives and grapes, the olives being crushed with stones and the grapes being trodden with the feet.

These primitive rock-cut fruit-presses consist of a single rectangular, circular, or oval vat, in the bottom of which there is generally one or more cup-holes. They are found both in the sides of the hills and on the rock-surface, as contrasted with the more elaborate types which are never found on the rock-surface, and are therefore of later date. Many of the more elaborate fruit-presses, including all those having a mosaic pavement, belong to the Roman Period.



FIG. 13. AN OLIVE-PRESS (see Sellin, *Tell Ta'annek*, Fig. 71).

Some of the single vats on the hillside are surrounded by cup-holes cut in the rock, which in certain cases are connected by channels with the vat.

Generally speaking, the depth of a single vat of this kind is the safest indication as to its original use. Deep presses, which would be well suited for treading but not for the manipulation of a crushing instrument, must be wine-presses, while those which are furnished with a pressing surface, or show some other indication of the use of an appliance for crushing, must be olive-presses.

<sup>1</sup> Cf. *Gezer*, ii, p. 49.



.The normal olive-press consists of three parts—a shallow pressing surface, a conducting channel, and a deeper receiving vat. There are, however, several varieties of this general type. Sometimes there is no connecting channel, and in such cases cup-holes have frequently been made in the bottom of the press, presumably to facilitate the baling out of the oil. Occasionally the receiving vat is provided with a spout or channel by means of which the juice could be more conveniently drawn off into the vessels.

Sometimes there is an intermediate receiving vat in which the juice was allowed to stand; the sediment was thus deposited in this secondary vat before the juice flowed into the principal receiving vat.

Again, in some cases, as we have already seen, there is no receiving vat, the press itself being made to serve as press and receiving vat combined. Olive-presses of this kind have a depression sunk in the middle of the floor into which the expressed juice flows, grooves in some cases being cut to direct the juice thereto.

When the olive-press and receiving vat are separate, the former is always rectangular or square, and for the reason given above it is invariably shallow, and rarely if ever exceeds 1 foot to 1 foot 4 inches in depth. It is not, as a rule, treated with cement but is left quite bare. The receiving vat is usually square but occasionally circular; it is much deeper than the press, but has a smaller mouth. It was often cemented. The connecting channel is usually "cut through the ridge of rock separating them," but sometimes it is "cut obliquely through the body of the rock."

It has been remarked that some fruit-presses contained an intermediate vat for refining purposes, but in numerous cases there was more than one receiving vat proper.



The simplest explanation of such additional vats would be that the original vat was not large enough; other suggestions are that they were reserved for different qualities of fruit-juice, or belonged to different individuals, who held the olive-yards or vines associated with the press in partnership.

In the smaller presses the olives were apparently crushed with the aid of stones, rollers, or pestles, worked by hand, while in the larger presses, a large broad stone wheel was rotated round a central staple by an animal. Some of these wheels have been recovered; the diameter of one of them, discovered at Sha'b Ya'kûb having a diameter of 4 feet 8 inches. After the crushing process, the juice was apparently expressed by boards placed over the fruit and made heavy by weights. Such weights have actually been found.

Sometimes vats were built into the corner of a cave, the sides being plastered; sometimes again they consist of a circular depression sunk in the floor of a cave, lined with plaster and covered in by a disc of stone.<sup>1</sup>

But an entirely different kind of press, consisting of a portable stone slab, was also in use throughout the Semitic Periods. The normal form consists of a circular table of stone, from 4 feet 9 inches to 6 feet 6 inches in diameter, and having a raised rim within which the fruit was crushed. A cup was hollowed at a spot just inside the rim, and the juice was collected therein.

A peculiar and rare variety of movable press is seen in Fig. 14. They consist of a block of stone, the diameter of the upper surface of which is about 2 feet and the depth about 1 foot. "The top is smoothed, and surrounding it is cut an oval ring. Communicating with this ring is a groove that runs over the edge of

<sup>1</sup> Cf. Bliss-Macalister, *Excavations in Palestine*, p. 56.

the upper surface and down the vertical face of the stone." The stone was evidently set on a raised surface; the fruit was crushed in the space within the ring, and the expressed juice flowed into the ring and thence down the vertical channel into a vessel placed beneath.

In the Hellenistic Period large stone vats, sunk in the plastered pavement of a room, became the normal type.

In regard to the innumerable cup-holes<sup>1</sup> found all over the "Tells" there is no explanation which has a universal application. They are found singly or in

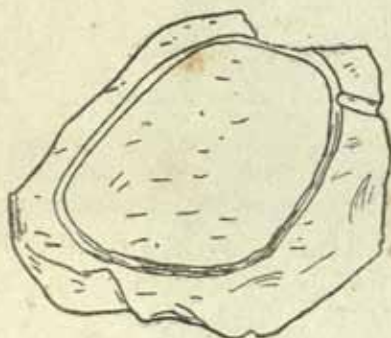


FIG. 14 (see Gezer, Fig. 256).

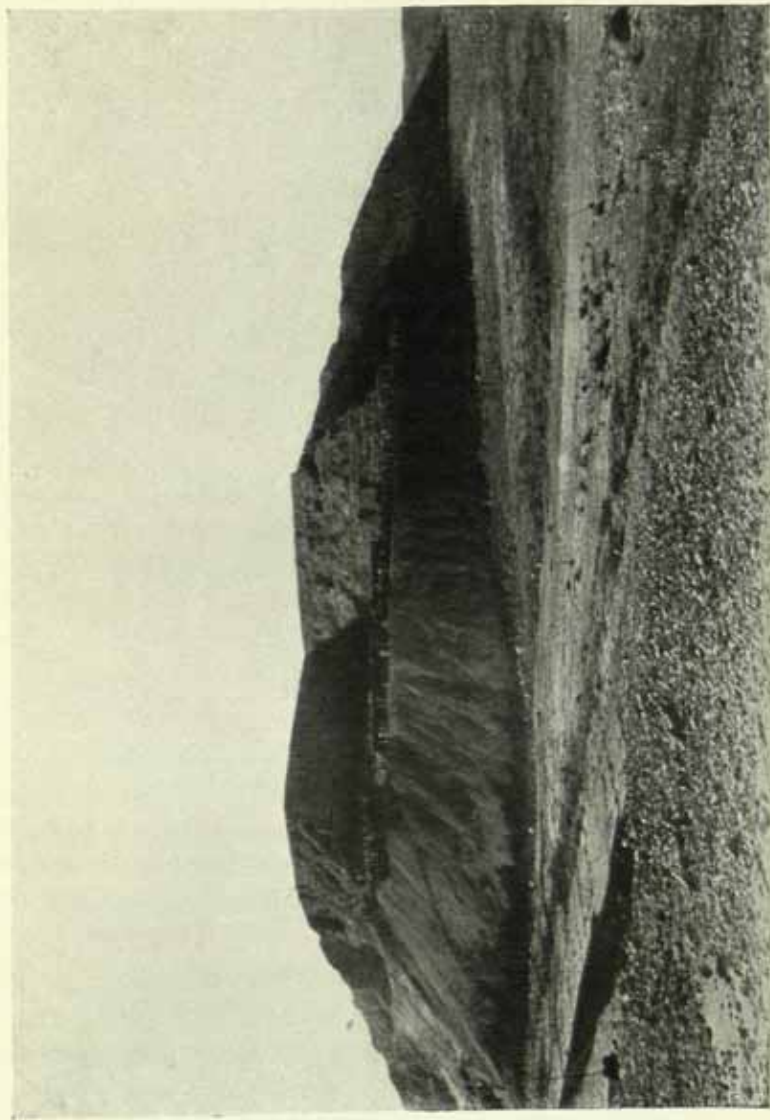
groups, and they are found in all sizes, from about 3 feet 4 inches in diameter, and 2 feet in depth, to small saucer-shaped depressions, 1 to 2 inches in diameter.

As a whole, the cup-holes of every shape exhibit a smoothness and regularity of surface which is perhaps correctly explained by the theory that they were brought to their final form by friction, e.g. by the rotation of a stone within them. No doubt a large percentage of the cup-holes are the work of Troglodytes. Many, as we have noted, were in some way associated with the

<sup>1</sup> Cf. Gezer, *passim*; Bliss-Macalister, *Excavations in Palestine*, pp. 189 ff.

worship of the gods or the burial of the dead ; others were associated with olive-presses or wine-presses, and served as small receiving or refining vats. Some again were possibly used for watering cattle, or for washing purposes, and others doubtless served as stands for vessels with pointed bases.

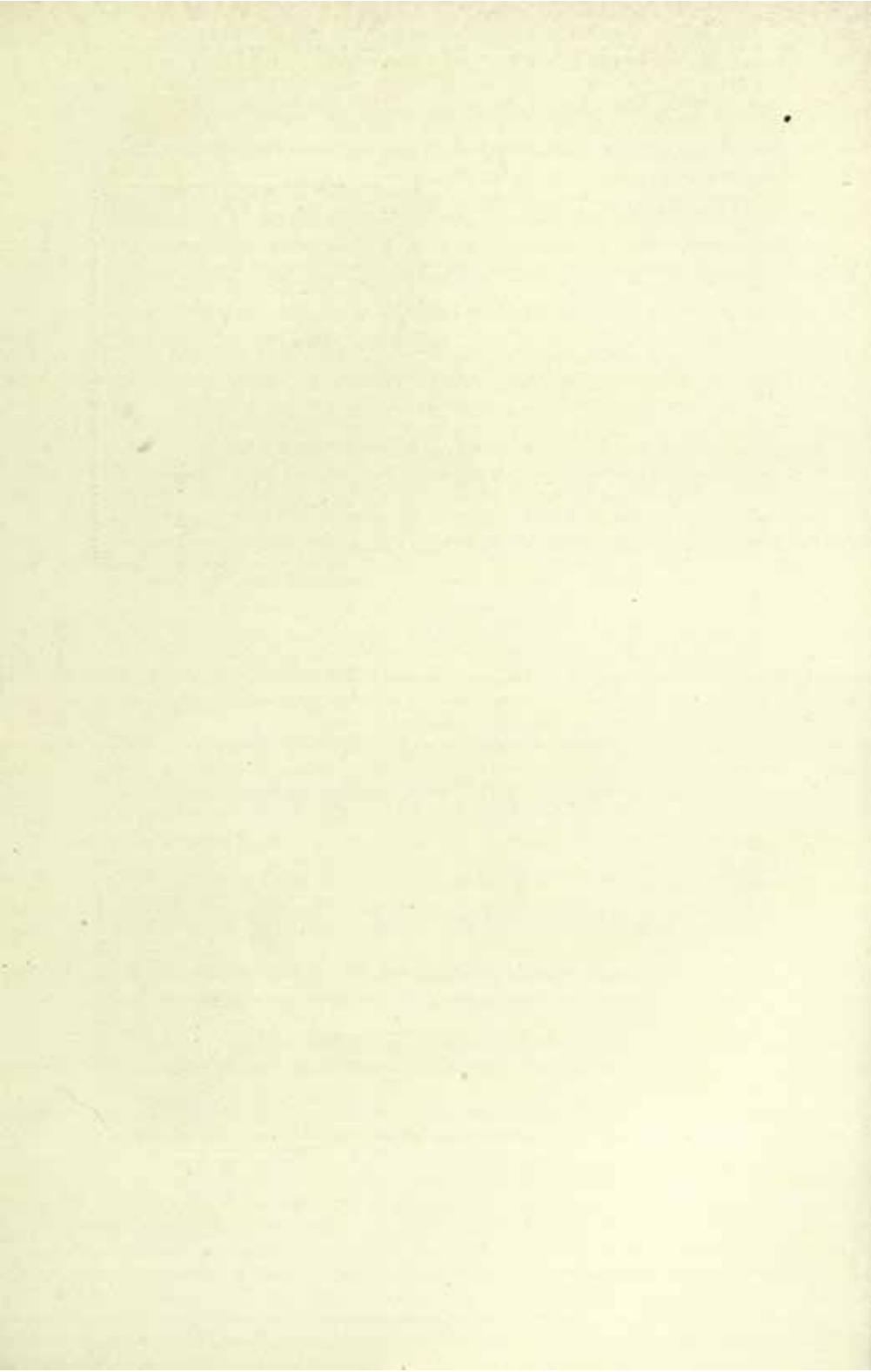




*(By kind permission of the Palestine Exploration Fund.)*

TELL EL-HESI.

To face p. 64.



## CHAPTER III

### ARCHITECTURE

THE Canaanite towns were almost invariably built either upon a projecting spur at the end of a chain of hills, as in the case of Megiddo, Tell eş-Şafi, Gezer, and Tell Zakariya, or else on an isolated hillock in the plain, as in the case of Lachish (Tell el-Hesi) and Taanach.

The earliest settlers were no doubt actuated in their choice of a particular site entirely by what they considered to be the natural advantages of its position. A hill is easier to protect and defend against the attacks of wolves or possible marauders than an open space in the plain. This is no doubt why the sites of their ancient towns are usually to be found on a natural elevation, the selection of a particular hill being determined by the fertility of the soil, the adequacy of water-supply, and other like considerations.

The mounds or "Tells" which contain the remains of the ancient towns of Canaan are not, however, of purely natural formation, but are in part due to the architectural customs which prevailed among the peoples of Western Asia from remote antiquity.

These settlements in no way conform to what is generally understood by the terms "town" or "city," as in the first place their dimensions were of the most limited character, and secondly they were as a rule



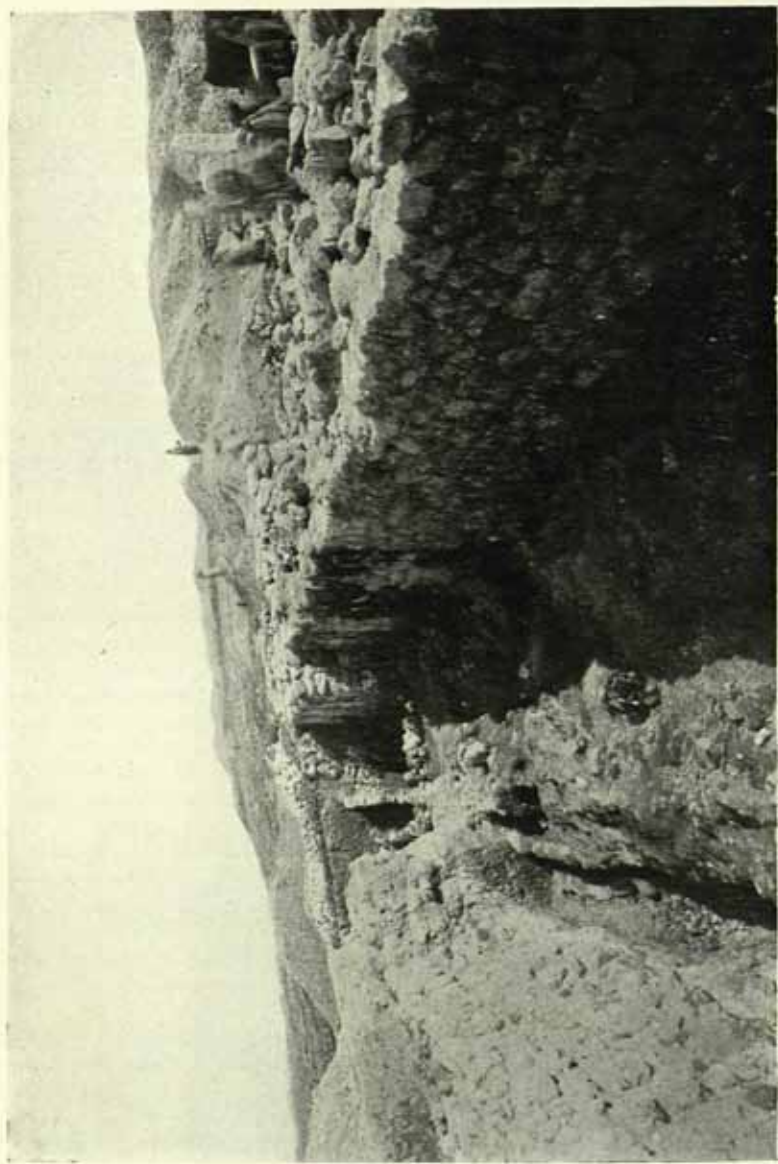
entirely devoid of the method and system of arrangement generally associated with the conception of a "town." Strictly speaking, the term "village" would be more appropriate, but as these settlements were frequently fortified by massive walls, the designation "village" is yet more objectionable. With this preliminary caution, we shall therefore call them towns.

These Canaanite towns consisted in a number of houses usually made of crude or sun-dried bricks. Structures of this character were bound to succumb ultimately to the combined attack of time and climate, even if they escaped the devastating hand of war.

In either case the buildings were demolished in the end, but the ruined débris was not removed, part of the old material being sometimes used again in the erection of the new building, while the remainder, when levelled, served as a kind of foundation platform. It will thus be seen that this process carried out a sufficient number of times would result in a mound such as that seen in Plate VI.

As already indicated, Tell el-Hesi is not entirely the product of artificial formation, the earliest city being built on a low natural mound from 50 to 60 feet high, while the ruined débris above measures another 60 feet.

This mound was found to contain the ruined débris of eleven cities, which ranged from about 1700 B.C. to 400 B.C. In towns, however, where the building material was chiefly stone, as, for example, at Tell Zakariya, Tell Sandahannah, and Samaria, it is impossible to assign each building to a specific period, or to count the exact number of periods, as is possible where mud-brick towns are superimposed above the levelled ruins of earlier towns built of the same material.



THE CITY-WALLS AT GEZER.

(From *Gezer*, i, Fig. 108.)

(By kind permission of the Palestine Exploration Fund.)





## RAMPARTS AND FORTRESSES

From the earliest times the Canaanites sought to reinforce the natural defences of their towns by building a city wall. At first, when the limits of the town were marked by the edge of the hill on which it was situated, the wall was built on the top of the mound and naturally followed its contour. But later on as the population increased, and the boundaries of the town were enlarged, it became necessary to erect a circumvallation on the slopes of the mound.

Let us now briefly consider some of the more important Canaanite ramparts and fortresses revealed by the excavations.

At Gezer<sup>1</sup> there are the remains of three successive



FIG. 15 (see *Gezer*, i, Fig. 119).

city walls. They are built one outside the other, and "lie in approximately parallel lines along their whole course" (cf. Plate VII). The central of these three walls is the oldest and the outer is the latest.

The central city wall consists of a bank of earth faced inside and outside with stone. The dimensions are not uniform throughout its course, but where it was most perfect, the inner stone facing measured 2 feet 2 inches thick and 6 feet 6 inches high; against this, earth is piled up, and covering the earth is a sloping face of stone, about 8 inches thick, the earth bank and the sloping face together being about 6 feet 6 inches thick at the base. The slope of this stone facing varies considerably, as may be seen in the figure (Fig. 15), the top

<sup>1</sup> Cf. Macalister, *Gezer*, i, pp. 236, 237 ff.

being almost flat, while the lower part is very steep. The stones used are of a small size, and as a rule do not generally measure more than 10 inches or 1 foot any way. They are set in mud. The course of the wall is interrupted by a standing-stone, which was apparently erected at a point where the older rampart happened to be ruined; for if the standing-stone antedated the wall, the latter would in all probability have been deflected so as to avoid it. If therefore the standing-stone was erected by the earliest Semitic occupants of the town, the rampart is to be assigned to the Troglodytes, and in that event this is the only example of a Troglodyte city wall as yet discovered in Palestine. It might be suggested that the standing-stone may have been erected in one of the later Semitic Periods, and that therefore the point cannot be pressed, but this theory would involve the assignment of the other walls to a later date than the archæological facts justify.

It is said that the rampart can never have been very effective as a military defence, and that possibly it may have simply been intended as a protection against the raids of wild beasts, but that explanation hardly accounts for the thickness of the wall.

There can be no doubt that this rude earth rampart, built on the rock, is the oldest of the three walls; the fragments of pottery contained in it are of the most primitive character, and it is quite inconceivable that this comparatively useless earthwork would have been set up if either of the two large walls had been in existence.

That this wall cannot be regarded as the lower part of a glacis built against the inner wall and contemporary with it, like the construction of the city walls at Jericho, Taanach, and Megiddo, is shown by the fact that it is *always* at a distance from the inner wall.

The later inner wall is of a much more elaborate





(By kind permission of the Palestine Exploration Fund.)

MASONRY OF INNER CITY-WALL.

(From *Geniv*, I, Fig. 122.)





character. It averages about 13 feet in thickness, and its foundations lie about 1 foot above the rock surface. The masonry consists of large irregular stones measuring from 1 foot 8 inches to 2 feet in each direction. They are hammer-dressed, and laid in rather irregular courses. Mud is used for mortar, the interstices between the stones being filled with smaller stones (cf. Plate VIII).

In certain places in the wall, a different type of masonry is used, consisting of large stones, the length of which greatly exceeds their height. Thus a specimen stone in these parts of the wall measures some 4 feet in length and 1 foot 6 inches in height.<sup>1</sup> Two gateways were discovered, one in the north and the other in the south. The northern gateway is somewhat complicated in character; Professor Macalister describes it as follows:<sup>2</sup> "It consists of a tower containing gateways in adjacent sides, one on the outer face of the wall, the other projecting inward, so that a person entering the city follows a passage that turns through a right angle inside the tower. The Gezer example of this type of gateway is peculiar. It is of such great size, that it is not clear how it can have been closed against intruders; apparently a movable barrier was erected in both this and the southern gateways, for in the northern gateway the passage is too wide to receive a door of reasonable proportions, and in the southern gateway there is no sign of door hangings or fastenings to be seen in the jambs."

The southern gateway consists of a narrow straight passage, 42 feet 3½ inches long and 9 feet broad, flanked by two brick towers. The passage, which is paved with roughly laid stones, rises gradually from inside to

<sup>1</sup> This wall contains the largest stones found in any building at Gezer (Macalister, *Gezer*, i, p. 239).

<sup>2</sup> Cf. *ib.* i, p. 240.

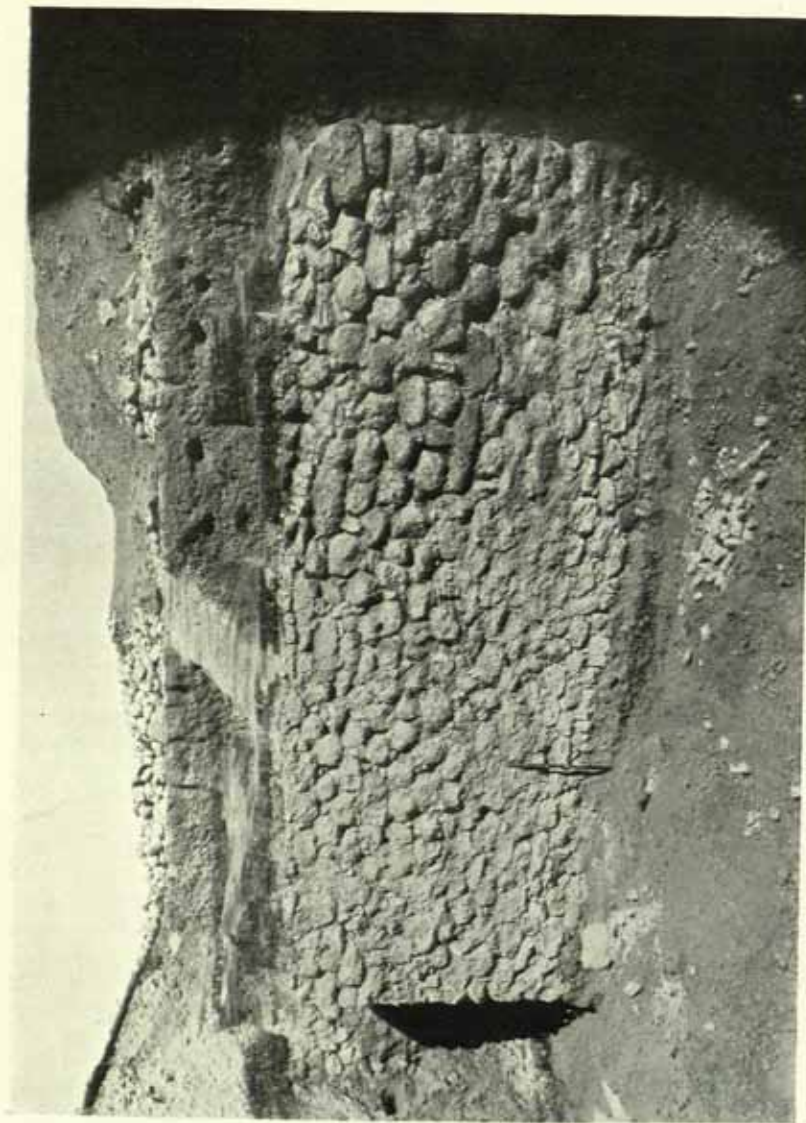
outside, and terminates inside in a step 2 feet high and 5 feet 6½ inches broad. The flanking towers are square solid blocks of brickwork (or *possibly* of rubble masonry with a thick facing of brickwork), and respectively measure 28 feet 5½ inches and 27 feet 7½ inches in length. They stand at present to a height of 14 feet. The bricks of which they are composed are nearly all sun-dried, and measure on a rough average 15 by 11½ by 4 inches. The western tower projects from the wall some 7 feet 10 inches, and the eastern about 10 feet 2 inches.

On each side of the passage the walls of the towers are masked for a height of about 6 feet by three slabs of stone, above which are a few courses of rough masonry. The slabs of stone are merely set against the brickwork, and at a distance of about 6 feet 5½ inches between each pair. They vary in length, the largest being 8 feet 9½ inches and the shortest 6 feet 6⅜ inches, and they are from 1 foot 10½ inches to 1 foot 11⅝ inches thick.

At some later period, perhaps about the time when the outer wall was built, this gateway was blocked up with a wall 15 feet thick, made of loose masonry. These gateway towers were not, however, the only towers in the rampart; the whole wall is strengthened by towers which occur at intervals of about 90 feet. A good specimen of one of these towers is shown in Plate IX. They average about 41 feet in length and 24 feet in thickness. All these towers have not been excavated, and it is therefore impossible to say if they are solid or contained chambers; one of them, however, which was excavated, was found to contain an oblong chamber.

That the inner wall is older than the outer wall is demonstrated by the fact that the latter blocks the gates of the inner wall. A lower limit for the date of the inner wall is fixed by the objects found in the buildings

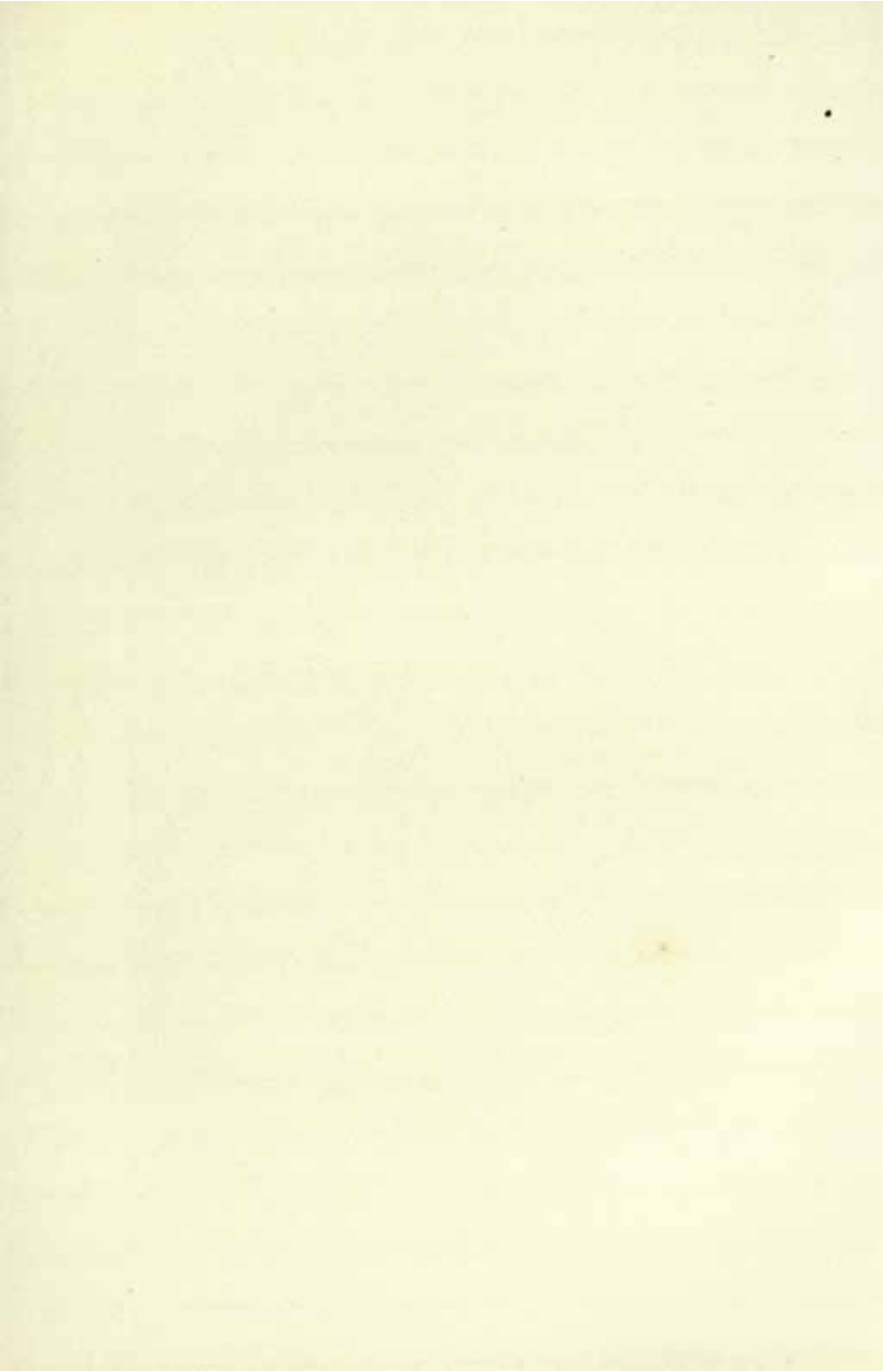




(By kind permission of the Palestine Exploration Fund.)

TOWER OF INNER CITY-WALL.

(From *Gazette*, I, Fig. 121.)



erected over the ruined top of the wall near the south gate. The foundations of three successive strata of house walls were here discovered. The lowest of these is immediately on the wall, and inside the rooms of these houses a considerable number of Egyptian objects—scarabs, amulets, and beads—belonging to the time of Amenhetep III were brought to light. Thus the inner wall must have been superseded by the outer wall at all events by the fifteenth century B.C., and must therefore have been the work of the earlier Semitic inhabitants of the city. As the later outer wall, which is of much inferior workmanship, continued in use for a thousand years, and as moreover it is probable that the Semitic invaders set about fortifying the city soon after their occupation of the same, possibly this wall was built as early as 2500 B.C. This date is of course, however, purely conjectural.

The outer wall, which is the latest of the three, has been traced for nearly the whole of its length. It has an average thickness of 14 feet, and in some places still stands to a height of 11 feet 10 inches. Its foundations extend right down to the rock, and in this respect it differs from the inner wall just described. The masonry of which it is composed is, however, vastly inferior to that of the earlier wall.

The total length of this wall is computed at about 4,600 feet. At the eastern end of the mound the outer and inner walls are combined into one, the builders of the later outer wall having adapted the work of their predecessors without addition. The wall is strengthened by towers both on the inside and the outside. But they do not occur with the same regularity of interval as those in the inner wall, while their dimensions vary considerably, some projecting only about 1 foot, while others project some 8 feet.



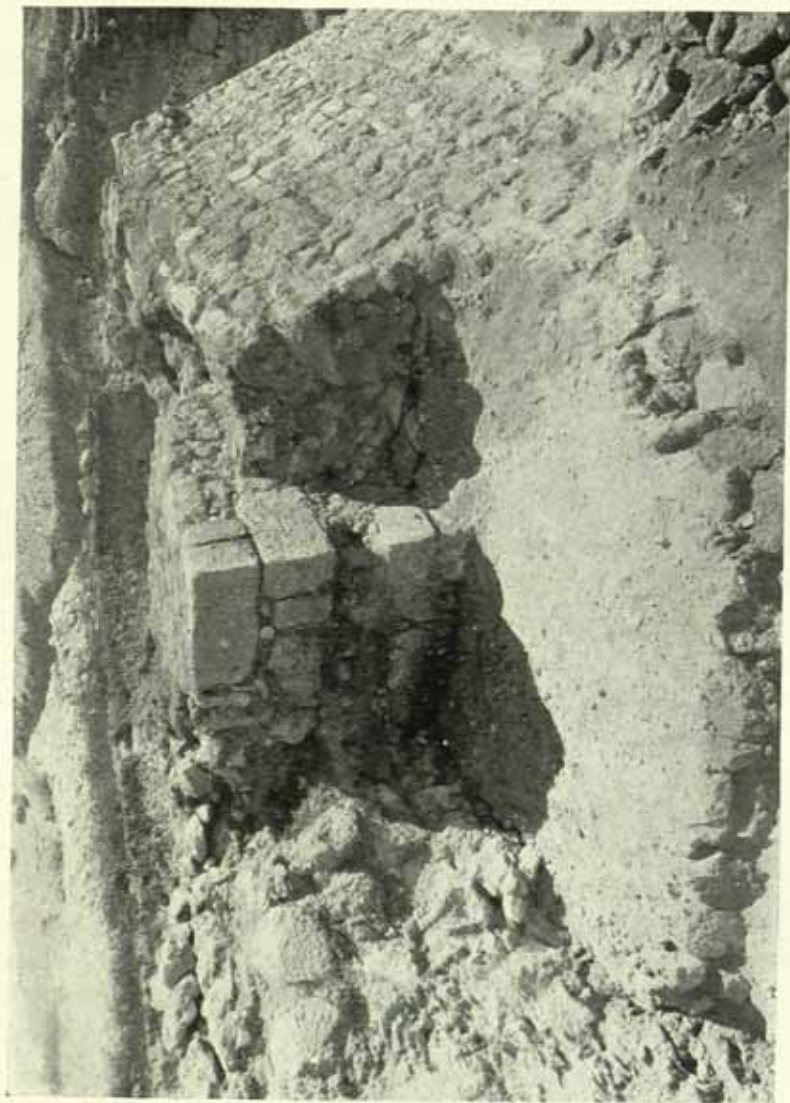
The masonry of this fortification work displays three distinct types, which probably belong to as many different periods. The wall itself, between the towers that interrupt it at irregular intervals, is composed of large, roughly coursed stones, measuring on an average about 2 feet in length and 1 foot 6 inches in height. These stones are for the most part only roughly hammer-dressed, and apparently no attempt was made to bring them to a rectangular shape. The joints are as a rule about 2 inches wide, and are filled with small stones wedged between the larger blocks, mud being used for mortar.

With three exceptions, the masonry of the towers is of a much superior character, the stones, in particular those at the corners, being well-squared blocks arranged in courses about 1 foot 9½ inches in height. They are of considerable size, the measurements of one specified by Professor Macalister<sup>1</sup> being 4 feet by 1 foot 4½ inches by 1 foot 6⅞ inches. Along the faces of the towers hammer-dressed stones as a rule take the place of these squared stones, but they are better made and are set with much greater regularity than those in the wall between the towers.

These towers are not bonded to the wall, or else they are only "bonded to a section about 3 to 6 feet long, which itself joins the main length of the wall with a straight joint." This fact shows that the towers did not form part of the original work but were a later addition.

At a still later date some of these towers were further strengthened by a "rounded casing, with sloping sides, carried round the face of the tower, and butting against the wall on each side" (cf. Plate X). It would thus appear that, so far as these late towers are concerned,

<sup>1</sup> Cf. Macalister, *Gezer*, i, p. 246.



(By kind permission of the Palatine Exploration Fund.)

TOWER WITH BASTION REMOVED.

(From *Géogr.* I, Fig. 120.)





the wall originally ran straight on without interruption. Later on, sections of the wall were cut out, and towers made of large square blocks of stone were inserted. It is clear that the builders of these towers never contemplated concealing these regularly laid and well-squared stones, but in course of time it was found that "the straight joint, between the junction of the tower and the wall, was a source of weakness," and accordingly an attempt was made to mask the joint by a covering of rough stones measuring about 1 foot 6 inches to 2 feet in each direction.

In the case of the north-east tower, the bastion is still further strengthened by the addition of an outer shell of masonry, while in the case of another tower (ii), the face of which slopes outward considerably, a sloping buttress has been added—presumably to prevent it from collapsing.

There are, however, three towers which exhibit the same type of masonry as the wall, with which they are also bonded; these therefore belong to the same date as the wall, which shows that this wall was fortified with towers from the very first.

No complete city gate remained in this wall, the only *certain* indication of a gate being a jamb in the southern part of the wall.

As we have already had occasion to note, this wall was probably built in the fifteenth century B.C. The growth of the city was no doubt one of the reasons for the supersession of the inner wall; but the accumulation of the débris of previous buildings within the city, and the consequently ever-increasing height of the new houses built thereon, was perhaps a still more determining factor; for if the housetops rose above the summit of the wall, the efficacy of the defence was, to say the least, distinctly marred. Further, as Professor Macalister points out,<sup>1</sup> in view of the growing height of the city

platform the thresholds of the city gates must have been inconveniently low. The space between the outer and inner walls was filled with limestone chippings and other rubbish, the object of which was to bring the additional space thus gained, up to the level of the city as it then existed.

Unfortunately archæology throws little light on the date of the square towers which formed a subsequent addition to this wall. The masonry of which they are made resembles that of structures at Tell el-Mutesellim

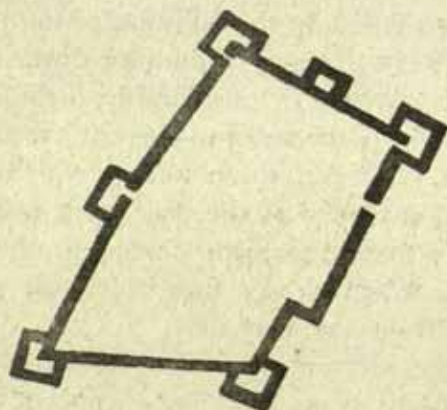


FIG. 16.

(Megiddo), assigned by Dr. Schumacher to the time of Solomon; and possibly we may see in these towers the work of repair alluded to in 1 *Kings* ix, 17.

The round casings of some of the towers were added much later, and it is suggested that these round casings may be due to Bacchides, who occupied Gezer for one year during the Judæo-Syrian wars, and is said to have fortified the city on that occasion.

The excavations at Tell Zakariya disclosed the

<sup>1</sup> Cf. Macalister, *Gezer*, i, p. 253.

PLATE XI



*(By kind permission of the Palestine Exploration Fund.)*

INTERIOR OF FORTRESS, TELL ZAKARIYA, NORTH-WEST CORNER.

*(From Excavations in Palestine, Fig. 5.)*

To face p. 74.





remains of a fortress similarly provided with towers.<sup>1</sup> It consists of an irregular four-sided construction with a tower at each of the four corners and also in the centre of the western and northern sides (cf. Fig. 16). The foundations of the wall are laid on the rock, and as the Tell was first occupied in late Pre-Israelite times, it might be assumed that the wall was of Canaanite origin. Such an argument, however, is by no means conclusive, as the foundations might have been sunk through the accumulated débris.

Apparently the fortress was simply a large enclosure for the protection of the houses erected within. Measured on the inside, the northern wall is 116 feet 6 inches long, the western wall 221 feet, the southern wall 124 feet, and the eastern wall 170 feet.

In thickness the wall varies from about 5 feet 9 inches to 6 feet 6 inches, while at a place where it was excavated to the rock, it was found standing to a height of 18 feet.

The main walls were constructed of rubble laid in mud mixed with straw without lime. This rubble contained some well-wrought stones intermingled with field-stones. The stones vary greatly in size; some of them measure as much as 5 feet 1 inch by 1 foot 9 inches (cf. Plate XI).

The walls of the towers are from 4 feet 8 inches to 5 feet 3 inches thick, and the projection of the towers from the main wall varies from 13 feet 6 inches to 16 feet 9 inches. They are composed of "fairly large rubble brought to courses with well-squared stones at the external angles." These stones, many of which are set on end, are as a rule either plain-faced or drafted with a boss. There is no evidence of the use of a comb pick, which is generally characteristic in Palestine.

<sup>1</sup> Cf. Bliss-Macalister, *Excavations in Palestine*, pp. 13 ff.

The towers were not built at the same time as the main wall, but probably belong to the Seleucidan Period, the wall itself being possibly the work of Rehoboam (cf. 2 *Chronicles* xi, 5-10).

Mention may here be made of three towers erected on the south-west edge of the mound. The faces of these towers range in length from 18 to 19½ feet, and they were erected at a point where attack was to be dreaded. The walls running from the towers, and apparently contemporaneous therewith, seem to have

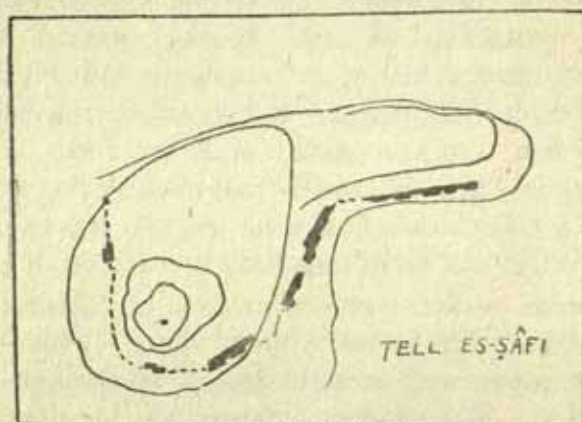


FIG. 17.

been built as a sort of revetment or retaining wall when the edges of the plateau were levelled, and formed no part of a rampart proper. The towers probably belong to the Greek or Roman Period.

The city wall at Tell es-Şâfi<sup>1</sup> (cf. Fig. 17) belongs to about the same period as the fortress at Tell Zakariya, but unlike the latter it rests on some 6 to 11 feet of débris. This débris was found to contain early Pre-Israelite pottery, which shows that the wall was not built by the first occupants of the Tell. The lower part of the wall

<sup>1</sup> Cf. Bliss-Macalister, *Excavations in Palestine*, p. 30.



shows outer and inner facings of rubble, packed with earth and small field-stones. The upper part, which is of mud-brick, at one place showed signs of conflagration. Apparently the upper part of the whole wall was made of brick.

As at Gezer and elsewhere, the wall was strengthened by projecting towers, or rather (in this case) buttresses. The maximum projection of these buttresses is only 2 feet, and their faces range from 30 to 34 feet in length. They occur at intervals of from 30 to 34 feet. The masonry consists of rudely spaced rubble set in courses ranging in height from 1 foot 3 inches to 2 feet, the interstices being filled up with mud and small field-stones. At the corners of the buttresses, however, the stones are well squared and set, and appear to have been dressed by a more or less blunt chisel. Parts of the wall are covered with a plaster composed of mud and straw, which in its turn is coated with a mixture of powdered limestone, straw, and water.

Some 17 feet below the surface lies the floor of a chamber, 20 feet long, built against the outer face of the wall. The walls of this chamber stand to a height of 7 feet. Both the floor and the walls are plastered with a layer of unslaked lime. Around three sides of this chamber there runs a low seat made of closely jointed blocks of soft limestone, with an "absolutely smooth surface." As at Tell Zakariya, the city-wall showed no signs of the use of the comb pick.

The city-wall at Tell ej-Judeideh (cf. Fig. 18) belongs to the time of the latest occupation of the mound. This period is represented by the highest 4 feet of débris, which was found to contain Greek and Roman pottery. The city-wall was accordingly built in either Greek or Roman times.

The wall follows the natural contour of the Tell, and

before excavations were commenced was traceable almost entirely round the edge of the mound. It is constructed of rude rubble, brought to courses above the surface, but laid without mortar, which shows that it is not assignable to the Crusading period. The

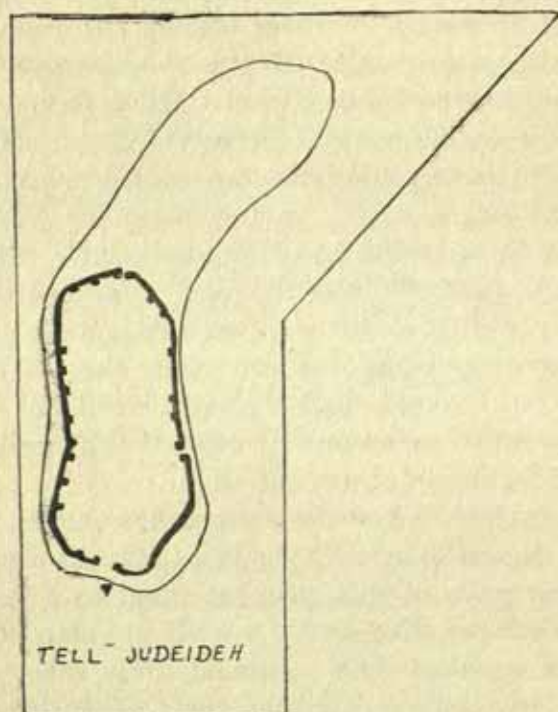


FIG. 18.

stones are roughly dressed, but the tool-marks have for the most part been effaced by time and climate.

The upper part of the wall has a uniform thickness of 10 feet, except where it is strengthened by buttresses. Of these there are sixteen; they are made of solid masonry, and project inwards.

In addition to the buttresses there are eight towers which flank the four gates of the city. Some of the



towers and buttresses are roughly bonded into the main wall, while others are without bond. Apart from the tower flanking the southern gate on its eastern side, the face of which is 34 feet long, the average facing of the towers and buttresses is 14 feet. The projection of the solid buttresses is from 3 feet 3 inches to 4 feet 11 inches. The chambers in the towers flanking the four gates measure about 6 by 7 feet, with the exception of the long tower at the south gate which contains a chamber some 28 feet long and 7 feet broad. The walls of these tower-chambers are from 3 to 4 feet thick.

The masonry of the south gate, which is fairly well preserved, is superior to that used in the main wall. The eastern jamb still stands to the height of 7 feet, the ruined top being 1 foot below the present surface. The stones have been dressed with a comb pick. The sill consists of several slabs of stone, 14 inches wide. That the gate was double is proved by the central bolt-holes and the door-post sockets. This opening is 10 feet 3 inches long. Within the gate there is a pavement which is about the same level as the entrance to the western flanking tower.

No entrance was found to the long east flanking tower; as already stated, this tower contains a chamber measuring 28 by 7 feet; it is approached by a flight of steps. The north gate is well preserved, the north jambs extending to a height of about 5 feet. They are dressed with a chisel pick, but no mortar appears to have been used. The east jamb "is eaten away by a series of furrows, plainly caused by the overlapping of iron sheets, with which the gate must have been plated." In this jamb there was also a socket for the

<sup>1</sup> Cf. Bliss-Macalister, *Excavations in Palestine*, p. 46.



reception of a transverse bolt, by which the gate was evidently fastened.

The east gate had been blocked up; the opening of this double gateway is 10 feet 3 inches long—i.e. 1 foot 8 inches more than the north gate. Its jambs, however, consisted of rude rubble, and contrast unfavourably with the masonry at the north and south gates.

There was also apparently a gate on the west side, at least such is the indication of the two hollow towers, which seem to correspond with the flanking towers of the east gate immediately opposite.

The town was apparently occupied in very early



FIG. 19.

times, but the absence of a late Pre-Israelite stratum indicates that it was deserted before the Hebrew occupation. It was reoccupied during the latter days of the Jewish monarchy, but was only fortified at a comparatively late period either in Greek or Roman times.

At Tell Sandahannah<sup>1</sup> (cf. Fig. 19), two city-walls were discovered, the inner wall being either at the edge of the Tell or a few feet down the slope, while the outer wall is farther down the slope and encircles the hill. The inner wall has a uniform thickness of 5 feet, but the foundations in certain places are some 8 to 11 feet thick.

<sup>1</sup> Cf. Bliss-Macalister, *Excavations in Palestine*, pp. 53-5.

These foundations consist of "large and small roughly coursed rubble, laid in mud, resting on débris at a depth of only 4 feet below the present surface."

Blocks of limestone are the characteristic building material of the town. These blocks, which are found in the wall and also in some of the towers, average about 21 inches in length, 6 inches in height, and 11 inches in thickness. The courses are laid in English bond, "a course of stretchers alternating with a course of headers."

The outer wall, which is about 6 feet thick, also rests on débris, and belongs to the same period as the inner wall. In some places the space between the two walls is hardly 15 feet, while in two cases the towers of the inner and outer walls touch each other.

The masonry of the outer wall is inferior to that of the inner wall; it shows the large and small rubble of the latter as well as the characteristic limestone blocks, but the large, well-squared stones are absent. It probably served merely as a low revetment to strengthen the upper wall.

The entrance is on the eastern side, where a gateway 9 feet wide opens directly into a quadrangular building. The eastern side of this quadrangular building coincides with the city-wall. The walls of the structure are about 5 feet thick, but the foundations, which were at one point found to be resting on the rock, have in some places a thickness of 7 feet 6 inches. This building contained a number of chambers, the largest of which measured about 55 by 17 feet. The building perhaps served as barracks. The gateway is protected on the outside by a tower, which projects 12 feet 8 inches from the wall and has a face some 17 feet long. The sockets of the door-posts were fitted with lead, and within the gateway there is a stone pavement as at Tell ej-Judeideh.



The fortification wall at 'Ain Shems (Bethshemesh)<sup>1</sup> displays the usual characteristics of Semitic fortifications all over Palestine. The wall, which ranges from about 7 feet 6 inches to 8 feet 6 inches in thickness, is composed of large blocks of stone set in mud. It still stands to the height of from two to three courses of these megalithic blocks. It does not, as one would expect, follow the edge of the mound, but pursues a course considerably within the natural line formed by the top of the steep slopes. On the north-east were found the remains of a rectangular construction projecting outwards from the wall. Only one course of the megalithic blocks of which it was composed were discernible, but it was evident that the bastion was of the ordinary type found all over Palestine. The stones show very slight indications of facing; they are set in mud, and the interstices are filled in with smaller stones. The front of the bastion is preserved up to a height of three courses; the megalithic blocks of which it was constructed were found to rest on the limestone rock at some 6 feet below the surface. The bastion is about 29 feet long, and projects from the main wall nearly  $19\frac{1}{2}$  feet on the left-hand side, and about 13 feet on the right. As is often the case in megalithic work of the Bronze Age, it was not built of one piece with the wall. From the pottery found at the foot, Dr. Mackenzie is disposed to assign it to the same age as the burial stratum of the East Grotto—that is to say, about 1400 B.C. It would thus belong to about the same time as the outer wall at Gezer.

The most interesting discovery made, however, was the south gate of the city. It consists of a long passage flanked by two projecting rectangular bastions (cf.

<sup>1</sup> Cf. Duncan Mackenzie, *P. E. F. Annual*, i, pp. 61, 63 ff.



Fig. 20). The bastion on the left, which is the more important of the two, contains a small room with a doorway on the east side commanding the entrance, and forming a kind of guard-room. The bastion on the right side of the gate encloses two small chambers, neither of which has any direct communication with the entrance or with each other. Dr. Mackenzie<sup>1</sup> suggests that they may have been used as dungeons.

Evidence of conflagration was afforded by the presence of charred wood and other burnt remains at the south gate and eastern portions of the city. The charred

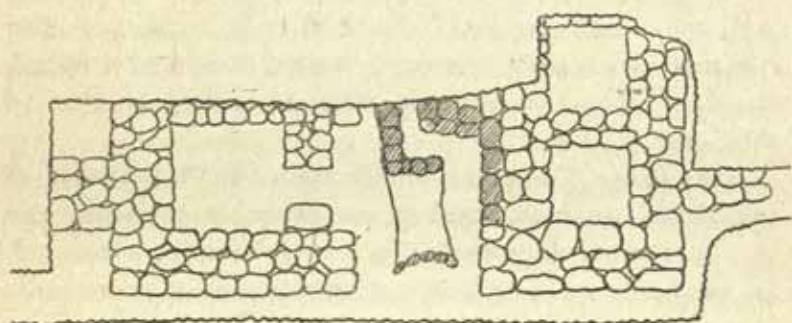


FIG. 20.

wood probably represents what is left of rafters, which supported "roofs of clay resting on reeds."

The remains of some four fortification walls have been discovered at Tell es-Sultan, the site of Jericho, one of which is Pre-Canaanite in date. Only a comparatively small portion of this wall has been preserved, but sufficient to show that we have here the remains of an early rampart. Its foundation consists of a single layer of irregularly laid, and apparently unwrought, field-stones. The superstructure is made of bricks of an unusually large size; these bricks measured as much as 27 by 15 inches in length and breadth, the

<sup>1</sup> Cf. Duncan Mackenzie, *P. E. F. Annual*, i, p. 90.

height varying from about 4 to  $7\frac{3}{4}$  inches. This wall is some 18 feet thick, and is considerably stronger than the inner Canaanite wall of later date (cf. Plan I at end, 5 D, 5 C, 6 C). Part of it lies underneath the north-west tower of the inner wall referred to, whence it proceeds in a northerly direction, passing underneath the outer protecting wall, also of Canaanite origin, and terminating somewhat abruptly about 18 feet short of the large outer sloping wall. Originally it must have passed the limits of the sloping wall, but was destroyed before the erection of this wall.

From the size and substance of this Pre-Canaanite wall there can be little doubt that it constitutes the remains of an early rampart, which, it is to be noted, clearly followed an entirely different course to that of the later walls.<sup>1</sup>

The *inner* Canaanite fortification works<sup>2</sup> consist of two walls, an inner wall of considerable strength, and an outer protecting wall of a less formidable character. In the north and north-west regions, both of these walls were excavated right down to their foundations. The larger of the two, which we shall call the "main wall," has been excavated or traced for a distance of about 89 yards on the northern side, and about 271 yards on the southern and western sides, making in all some 360 yards. It is estimated that the whole wall surrounding the city must have measured about 650 yards, its greatest length being about 227 yards, and its average breadth some 130 yards.

The thickness of the main wall varies from about 10 feet 8 inches to 12 feet, while that of the outer protecting wall is from about 4 feet 9 inches to 5 feet 3 inches. Both walls are constructed of sun-dried bricks laid upon a rubble foundation. This foundation

<sup>1</sup> Cf. Sellin-Watzinger, *Jericho*, p. 17.

<sup>2</sup> Cf. *ib.* pp. 20, 21 ff.



consists of from two to three courses of irregularly laid field-stones, and varies in height from about 1 foot 7 inches to 2 feet 7 inches, while it has an average width of 13 feet, and thus forms a wider basis, projecting both inwards and outwards, for the brick wall above.

Mud-mortar was used to give coherency to the whole. On the north side of the protecting wall, a substructure consisting of two courses of field-stones, and measuring some 5 feet 2 inches in breadth, was revealed. This was evidently built as an additional support to the foundation of the comparatively weak brick wall, the stability of which it must have greatly increased.

The bricks used in the main wall are by no means uniform either in size or shape.<sup>1</sup> They show much divergence in length, the larger ones being often more than 1 foot 9 inches long. They do not, however, vary greatly in height, being on an average about  $3\frac{1}{8}$  inches high, so that at all events the courses display a certain amount of horizontal regularity.

These bricks are pinkish in colour and they are made of almost pure clay, containing very little flinty admixture and not a trace of vegetable matter. The mortar is made of a sandy clay of lighter colour, and more flinty in character. An unusually thick layer of this mortar was frequently set in the interstices between the courses, the effect of which was to level up the course and counteract the irregularity which would otherwise occur as the result of the variation in height of the individual bricks. Between the vertical joints of the bricks on the other hand, mortar is often lacking altogether, or else is so sparsely laid that it is hardly discernible.

The lack of uniformity in the foundations, and the absence of a regular dividing-line between the layers,

<sup>1</sup> Cf. Sellin-Watzinger, *Jericho*, p 22.



is probably due to the two walls having been built in sections. These sections can be easily recognized by the variation in height of the stone base, the changes in the layers of bricks, and the joints. Apparently on each of these sections a special gang of workmen was engaged, the workmen in each group building their part of the wall in their own way, without any attempt to make their allotted portion conform in structure to the rest of the rampart.

At the north-west corner the main wall widens out into a massive tower, having a frontage of over 39 feet and projecting northwards about 5 feet 10 inches from the wall. The base of the tower on the east side, as far as it is revealed, consists of from five to six courses of ashlar, which are wrought more and more carefully, according to their proximity to the corner. The corner itself is built of six squared stones, the two outer faces of which are dressed smooth. On the brickwork, and about  $9\frac{3}{4}$  feet above the lower edge of the foundation, were discovered three courses of well-squared stones of different sizes, which apparently formed the lower part of the foundation of another layer of bricks on top.

The tower is not bonded with the inner wall,<sup>1</sup> but that does not necessarily imply that the tower is of much later date. The explanation would appear to be rather that the strengthening of the wall, as in the case of single stretches or sections of the wall itself, was carried out by a special group of workmen after the principal wall in this place had already been finished.

This had a practical advantage, and the experts of a later date arranged that towers to be erected should not be bonded to the wall, so that in the event of

<sup>1</sup> Cf. Sellin-Watzinger, *Jericho*, p. 23.

their destruction the wall itself should not be involved in the ruin. Perhaps the early Canaanites avoided bonding the towers with the fortification wall for the same reason. The projection of the tower on the west side must have corresponded to that on the north, but owing to the mass of superimposed débris, the complete excavation of it was not feasible; from the available data it would appear that it projected on this side about 5 feet 3 inches. The tower, furthermore, projects on the inside of the wall, and the thickness of the whole mass must be nearly 19 feet; its shape is rectangular, and its length is more than double its breadth.

Under the small east side of the tower is a stone foundation running from north to south, that is to say, transversely to the main and protecting walls, while at right angles to this stone foundation, and adjacent to the outer protecting fortification, is a short piece of wall running in an easterly direction, probably the remains of an earlier house wall. Some 19 feet east of the inner corner of the tower is a gap just over 3 feet broad, which is filled in with three courses of stonework, standing separate from the brickwork on either side of the gap. This gap may have been the work of an enemy who breached the wall, or it may have been purposely left as a means of communication during the building of the wall; the latter theory seems the more probable of the two, as in the event of an attacking enemy succeeding in breaching the wall, he would have in all likelihood effected a larger breach than the  $3\frac{1}{2}$  feet gap in question.

At the same place<sup>1</sup> is a brick wall running from the main rampart to the outer fortification, and composed of two rows of bricks of abnormal size. It

<sup>1</sup> Cf. Sellin-Watzinger, *Jericho*, p. 24.



lies at a lower level than the foundations of the fortification walls. Here again we have the remains of a house wall, constructed before the fortification of the city with the double wall. About 9 feet farther on we come across another transverse wall,<sup>1</sup> having a foundation consisting of two courses of field-stones, over which the double wall passes, and which accordingly must have been the product of an earlier time.

None of the above-mentioned walls was contemporaneous with the double wall, and therefore, needless to say, they were not binding or connecting walls, the first example of a binding wall being found farther east (see Plan I at end, D 6, 7).

The outer protecting wall in its westward course passes over the massive brick structure of Pre-Canaanite times, bends round the north-west corner of the main fortification with its projecting tower, and is then carried south in the same direction as the inner wall which it covered, and to which it is practically parallel. The outer wall is not so well preserved as the inner; but this is what one would expect, as it is not nearly so thick or massive, and its ill-preservation affords no argument whatever against the contemporaneity of the two walls.

The main wall, in so far as it is preserved, can be best followed in the easterly part of its course, where, for a stretch of 65 feet, it has been laid bare to its foundation, and remains standing to a height of from 13 to 16½ feet. It is in this quarter that we first come across anything in the nature of binding walls. We here find the outer and inner walls joined by two cross-walls, about 4 feet 6 inches from each other. They are made of bricks set upon a foundation

<sup>1</sup> Cf. Sellin-Watzinger, *Jericho*, p. 24.



of stone, which varies from between 2 and 3 feet in breadth. A small wall, parallel to the fortifications and 4 feet 6 inches from the main city-wall connects these two cross-walls. About 9 feet 9 inches farther on is another cross-wall, while at further intervals are two more, as will be seen from the plan (D 7). Of the first two of these only the stone foundation remains, but in the case of the third, several courses of a double layer of normal rectangular bricks are still preserved. The bricks measure approximately 16 to 18 inches in length, from 12 to 14 inches in breadth, and just over 4 inches in thickness.

Of the contemporaneity<sup>1</sup> of these cross-walls with the fortification walls there can be no doubt, for the structures are, as it were, interwoven with each other and bonded together.

A still more surprising feature in this part of the rampart is the occurrence of three large round holes in the main wall, which served as sockets for beams. These holes have a diameter varying from about 8 to 10 inches; the first<sup>(1)</sup>, immediately east of wall *b* (cf. Plan II at end, D 7, 1, 2, 4), is separated from the second by a distance of about 7 feet 2 inches, while the interval between the second and the third<sup>(2 and 4)</sup> is slightly more. The first hole is highest up in the wall and the third is the lowest.

In addition to these, there are two smaller beam holes, having a diameter of about 4 inches, which must have stood in some relationship to the larger holes already described. One of these lies obliquely below the second large hole, the other<sup>(3)</sup>, which is somewhat higher, lies close to the third large beam hole.

The holes were all filled with the remains of rotted

<sup>1</sup> Cf. Sellin-Watzinger, *Jericho*, p. 25.

wood, and extend over 3 feet into the wall.<sup>1</sup> They were not made at the same time as the wall, because in the layers of bricks no allowance was made for holes for the beams, these holes being subsequently bored into the already finished wall. In the débris around the holes there were also unmistakable traces of decayed wood. Between the walls *b* and *c* three layers of this rotted wood were distinguished. Between *c* and *e* these layers commence some 3 feet above the stone foundation of the walls; the first layer is from about 4 to 8 inches thick, then comes a layer of loam about 2 feet 2 inches high, and over that a second layer of wood some 18 to 20 inches thick. These more or less horizontal layers of wooden débris fill not only the breadth but also the entire length of the room formed by the city walls and these cross-walls, and extend over and beyond wall *e*, but then completely cease. The only place where the regularity of these layers of wood is interrupted is midway between *c* and *d*, where were found the stone foundations and brick walls of later houses, in the course of the erection of which the outer protecting wall east of *e* has been destroyed right down to its stone foundation. The layers of wood thus belong to the interval which elapsed between the building of the fortification walls and the subsequent recolonization of the city.

It is impossible to say whether similar remains of wood are to be found elsewhere, as the process of excavation has not been carried out to the same depth in other quarters. It is, moreover, also impossible to say whether the outer wall contained similar holes corresponding to those in the main wall, owing to the fact that the outer wall has not been

<sup>1</sup> Cf. Sellin-Watzinger, *Jericho*, p. 26.



preserved to the required height. We are again left in a similar state of uncertainty as to the precise object which the beams in question served. It has, indeed, been suggested that they formed part of a scaffold, erected for the building of the wall, but in that event the beams would have obviously been removed from the holes, while, as already mentioned, there is clear evidence that the holes were made subsequent to the erection of the wall.

It will be noticed that these holes (cf. Plan II) are not all in the same position relatively to the two cross-walls, which, with the inner and outer city-walls, in each case contain the rooms in which these beams were used. Thus one<sup>(4)</sup> of the three large holes is more or less in the centre of the southern wall of the room (between *c* and *d*), and therefore possibly in this case the beam served as a support for a partition wall dividing the room into two. On the other hand, the two holes<sup>(1, 2)</sup> found in the south wall of the room lying between *b* and *c* are situated the one close to wall *b*, and the other close to wall *c*. The beams here may therefore have supported or formed part of a gallery round the room. It has been suggested<sup>1</sup> that the smaller holes may have held shorter beams, which were perhaps used to support a stairway. All this is, of course, entirely conjectural. But whatever may be the correct explanation of the beam holes and wooden débris, the rooms in which they were found can have only been used for military purposes. Access to them could have only been gained from above, presumably by means of wooden ladders, while in the same way any light which they received must have come from above.

We have observed that the inner city-wall, or main

<sup>1</sup> Cf. Sellin-Watzinger, *Jericho*, p. 27.



wall, has not been completely excavated. On the west and south sides it has only been partially excavated for a short stretch at three points. At one place, however, where it was laid bare to its stone foundation, it was found still standing to the height of some  $27\frac{1}{2}$  feet. The bricks of which it is composed have been burnt red by a fierce fire, and are quite brittle. The space before the wall was filled with the débris of hard, red bricks, intermingled with gigantic blocks of stone. The outer wall at this point has disappeared. The violent burning to which the bricks had been subject showed that here, too, as in the eastern part of the wall, timber-work was used between and upon the walls. Similar evidence of a conflagration was forthcoming farther north in the region of the north-west tower. It is thus clear that the city had suffered from fire at the hands of an enemy, but the absence of a layer of burnt remains on the top of the ruins shows that there was no systematic burning of the whole city.

The mound gradually slopes southward, and towards the middle of the western side the main wall attains its greatest depth; the lower part of the wall here expands outwards, forming a kind of bow-shaped projection (cf. Plan I, 4 F G) 39 feet in length, with a maximum breadth of 6 feet 6 inches.

Of the brick wall which surmounted this projection, very little remains.<sup>1</sup> This projecting tower must apparently have commanded the wall north and south, and have thereby greatly increased the defensive value of the wall.

The large outer wall<sup>2</sup> consists of a foundation, a sloping wall or glacis bulging outwards, and a perpendicular brick wall. The foundation extends down to the rock, which is splintered and in a general state of disinte-

<sup>1</sup> Cf. Sellin-Watzinger, *Jericho*, p. 30.

<sup>2</sup> Cf. *ib.* pp. 54, 55 ff.

gration. It is doubtful whether an attempt was made to level the rock, but there is no doubt that the superimposed layer of disintegrated material was subjected to a process of levelling. The thickness of this layer averages about 2 feet.

The substratum, or what may perhaps be called the lowest part of the actual wall, is not laid directly on the rock or on the superimposed layer already referred to, but on a bed of loam sparsely mixed with small stones, and about 4 feet thick. The foot of this bed of loam is consolidated by a facing of large massive field-stones, which rested immediately on the layer of disintegrated rock.

Apart from its slope, the stone wall has an outward bulge which must have considerably added to its strategic value. The material of which it is composed was evidently drawn from the immediate neighbourhood, and consists of bituminous limestone, flinty limestone, bituminous marl, and flint.

The entire height of the stone wall varies from between about 14 feet 6 inches and 17 feet 6 inches, the greatest height being attained in the middle of the northern side, while on the eastern and western sides of the fortification it dwindles down to about 14 feet 6 inches, and rises again on the south to about 15 feet 6 inches. This wall consists of two distinct parts, the banquette and the sloping wall. They are separated from each other by a space of about 6 inches. The lower part of the banquette is composed of two layers of medium-sized stones, the interstices between which are carefully filled in; above this is a row of massive blocks of stone, measuring from about 3 feet 3 inches by 4 feet to about 3 feet 3 inches by 6 feet 9 inches.

These huge blocks are set close to each other, and



are brought into an almost horizontal layer by means of a packing of smaller stones underneath. Here too the interstices are carefully filled in with rubble, the larger spaces being first filled, then the smaller gaps, while finally the crevices that still remained were stopped up with small splinters or chips. Thus these large blocks formed a kind of plinth for the sloping wall. At one place in the north, where the wall attains an exceptional height, there is a second course of blocks set on top.

Above these large stones is a layer of medium-sized stones roughly coursed and similarly wedged, and then a thinner layer of covering stones. We clearly have here an example of the style of architecture found in the Ægean, and generally known as the *Cyclopean* technique, characterized by more or less large blocks surrounded by smaller stones and wedged with chips. This mode of building was similarly found at Taanach,<sup>1</sup> Gezer,<sup>2</sup> and Megiddo.<sup>3</sup>

In the earlier walls the undressed blocks of stone are piled up without any attempt to bring them into courses.

In the wall with which we are dealing the smallest crevices have been so carefully filled in that no place in this complex and compact structure afforded an opening for a pick or other implement of attack, and nowhere has the enemy succeeded in cutting a vertical gap in this admirably constructed rampart.

The large blocks of stone which lie in the middle of the face of the banquette are roughly hammer-dressed, and here and there are what appear to be chisel-marks. The

<sup>1</sup> Cf. Sellin, *Tell Ta'anek*, p. 20.

<sup>2</sup> Cf. Macalister, *P. E. F. Q. S.*, 1902, p. 319.

<sup>3</sup> Cf. Schumacher, *Mitteil. und Nachricht. des Deutsch. Pal.-Ver.*, 1905, p. 7.



upper and under surfaces of the medium-sized stones are roughly dressed, but their vertical faces where they adjoin, are for the most part unwrought.

The sloping wall proper, which rests upon this foundation-work, consists of well-laid stones, the number of courses varying from six to twelve. The outer faces of the stones do not dovetail in with the curved face of the bulge of the sloping wall, their upper edges projecting like a flight of steps. The height of the individual courses varies inversely with the actual height in the wall at which they are found, the lowest course being from about 20 inches to 2 feet in height, and the uppermost course from about 6 to 8 inches.

The rising of the bulge varies from about 6 to 8 inches, while the banquette itself has hardly any bulge. The individual courses have here been very carefully levelled with the obvious intention of consolidating the wall.

Altogether the wall slopes backward from about 7 feet to 8 feet 7 inches, from 2 feet 2 inches to 3 feet being realized in the banquette and the remainder in the sloping wall proper. In the south and south-west portions of the wall the regularity of coursing entirely disappears, and it seems clear that the same architect cannot have been responsible for the whole. On the other hand, it is clear that the wall is a coherent entity, and the inferiority in the actual structure of the southern portion is probably due to that part of the wall having been erected with greater haste and consequently with less care than the northern part of the rampart.

The vertical brick wall which surmounts the sloping wall is unfortunately only in a very partial state of preservation. In many places it has a kind of foundation of its own, consisting of two or three layers of stones, but elsewhere it lies immediately on the sloping

wall, from which it recedes some 8 to 12 inches. It is about 6 feet 6 inches thick, and its present height is some 7 feet 10 inches. What its original height may have been is, of course, entirely a matter of speculation.

In the north, where the outer rampart runs more or less parallel to the north-west corner tower in the main inner wall, the brick wall projects outwards some 2 feet 8 inches, and here attains a thickness of about 9 feet. Nowhere else in the wall is there evidence of any such projection.

The bricks, which are made of pure loam, conform to no regular standard, as was the case at Megiddo and elsewhere. Chopped straw was used to give coherence to the individual brick. Irregularities occasioned by the various sizes of the bricks were readily counteracted by the use of half-bricks or shapeless lumps of clay. The wall has been traced for some 426 yards, and it is estimated that the circumference of the whole rampart measured about 842 yards.

From the very first moment that the skilled architect, Herr Langenegger, viewed the wall, he was convinced that this large outer wall was of Canaanite workmanship, and was connected with the general scheme of fortification, of which the inner works, admitted by all to be Canaanite, formed a part. At the close of Professor Sellin's last campaign, he was of the same opinion; but since then, in view of certain archaeological facts, the cogency of which we may now briefly consider, he has come to the conclusion that this outer sloping wall is Israelite.

The arguments that have been adduced to support this contention are as follows: Firstly, the technique of this massive rampart is too elaborate to admit of a Canaanite date, and is probably to be regarded as the work of Hiel, the Bethelite, some six centuries



later. Secondly, between the double fortification lines there is a series of staircases, which converge on the slope of the hill. They end at a level practically uniform with the dismantled crest of the main inner wall, while on the other hand the lowest stair was approximately on a level with the upper edge of the sloping wall, or the lower edge of the foundations of the brick wall. It has thus been argued that these staircases were made for the acceleration of the levelling process and the removal of the débris after the destruction of the Canaanite town. None of these stairways is brought up to the line of the outer wall, but if their axes were prolonged they would find their natural termination in the glacis of the outer wall; therefore, it is urged, the rampart did not exist at the time when the stairways were made for the purpose of making a ready communication with the plain. Thirdly, the same calcareous marl found under the stairs is also used as ballasting material in the construction of the sloping wall. Fourthly, fragments of Canaanite pottery were found at the foot of the glacis, while in the débris above only Israelite pottery is found, from which it is inferred that the wall was erected after the destruction of the Canaanite town, these pottery fragments being from that point of view regarded as part of the ruined débris of the destroyed town.

The last argument is of little value. Canaanite pottery was made in Jericho from about 2500 B.C. Large quantities of this fragile pottery must have been broken in the first Canaanite centuries, and if the rampart was built not earlier than between 2000 and 1800 B.C., what is there remarkable in the discovery of fragments of Canaanite pottery at the base of that wall? They might even be contemporaneous with the foundation. The fact that only Israelite pottery



was found in the upper débris surrounding the wall at first sight sounds forcible, but the value of this argument depends on the theory that the sloping wall formed part of the foundation, and that when it was originally made it was nearly everywhere below the surface of the ground. Apparently the proposition is that the sloping wall, which varies from about  $14\frac{1}{2}$  to  $17\frac{1}{2}$  feet in height, and rests on a substructure of over 4 feet, was merely part of the foundation of the wall.

Such a theory seems highly improbable. Why should a foundation be made like a glacis? Why should it be made so abnormally deep? Why should this glacis have an outward bulge? It is, however, admitted that in the south<sup>1</sup> the sloping wall must have originally risen above the surface of the ground. But if this sloping wall was merely used as part of the foundation, and in no other part of the wall appeared above the surface, why is there any sloping wall at all in the south, where the rock-level lies at a lesser depth than elsewhere, and consequently there was no need for this part of the elaborate foundation? If it was admittedly above the surface of the ground on the south, it is surely clear that the rest of the sloping wall was also originally above the ground. It cannot have served as part of the foundation in some sections of the wall and a definite part of the rampart above the ground in others. It seems transparent that this peculiarly constructed glacis was part of the actual rampart and not merely a part of its foundation, and that the débris surrounding it accumulated *after* its erection, and accordingly the occurrence of Israelite pottery in that débris is merely what one would expect.

<sup>1</sup> Cf. Sellin-Watzinger, *Jericho*, p. 60.

The argument based on the similarity of the lime-marl layer beneath the stairways and that in the foundations of the sloping wall<sup>1</sup> is equally fallacious. An argument based solely on the use of the same material in the foundation work of two different structures is at best a very hazardous argument for their contemporaneity. But in this particular case, even if we assume the validity of the argument, it lends no support to the case for the Israelite origin of the sloping wall. This layer of lime-marl was found beneath the stairways, which are therefore later. On the other hand, the similar layer in the wall appears to have been some 15 or more feet below the level of the lime-marl beneath the steps, and yet more beneath the level of the Israelite town, from which facts it can hardly be inferred that the sloping wall is contemporaneous with the Israelite city.

The argument based on the stairways is not convincing, and still less conclusive. According to the hypothesis, these stairways would be pointless if the wall belonged to the Canaanite Period, and thus barred their exit into the plain. But these staircases admit of a very easy and natural explanation. They are simply ways of communication made after the Israelite conquest, over the ruins of the Canaanite town, which continued to be occupied by some of the old population. The large Canaanite wall had been dismantled, and the débris of the ruined buildings within, instead of being removed to a distance, were levelled on the central platform, and thrown back on the slopes of the mound. Even if invaders had sought to remove the débris to the plain outside, they could have very easily thrown it over the dismantled Canaanite wall; but as a matter of fact there is no evidence whatever

<sup>1</sup> Cf. Sellin-Watzinger, *Jericho*, pp. 51, 53, 60.



to show that they removed the débris into the plain at all, and all the evidence available points in a contrary direction. It is also to be observed that not one of the staircases is carried as far as the outer wall, while the lower step of each is practically on a level with the dismantled crest of the wall. These stairways were obviously made to facilitate communication over the ruined débris levelled by the Israelites as a preliminary to the erection of their new city.

Lastly, there is the argument based on the elaborate and substantial nature of this rampart. This argument is simply an appeal to an imaginary and non-existent law of ever-continued and ceaseless progress. How easy it would be to cite illustration after illustration of the flagrant contradiction of that supposed law all over Palestine as well as elsewhere! Thus, to take a single example, it is manifest that no one can seriously contend that the Pre-Israelite engineers who made the world-renowned tunnel at Gezer were incompetent to make the rampart in question, while in Jericho itself the superiority of the Pre-Canaanite wall over that of the main inner Canaanite wall has already been remarked.<sup>1</sup>

Thus none of the arguments which have led Professor Sellin to abandon the *primâ facie* view in regard to the integrity of the whole plan of fortifications, which both he and Herr Langenegger accepted without hesitation, seem in any way cogent; and in the absence of evidence of a more convincing character, Professor Sellin's original view that this rampart is of Canaanite workmanship, and forms an integral part of the Canaanite fortification works, seems more consonant with the archæological data at our disposal. But in any event,

<sup>1</sup> Cf. Sellin-Watzinger, *Jericho*, p. 17.



whether the wall destroyed by the Israelites was the outer rampart, or whether it was the inner wall, which is admittedly Canaanite, none of the fortification works at Jericho shows any sign of having been destroyed to the extent that a reader of *Joshua* vi would naturally suppose.

In view of the archæological data, every effort has been made to explain away and dispose of the obvious meaning of the statement in *Joshua* iv, 20—"the wall fell down flat." It has, for example, been suggested that the Hebrew verb *naphal* here does not mean "fall," but that argument is absolutely untenable. It has accordingly been urged that "the wall" does not mean "the wall," but only a comparatively small part of the wall, and in support of this contention it is remarked that the Biblical writer states that Rahab's house, which was situated on the "wall," was preserved. The word used here for "wall" is different from that used in *Joshua* vi, 20, and generally denotes the wall of a house or chamber, and therefore here probably means the inner part of the wall. But in any event this argument is worthless unless we are to assume that Rahab's house occupied the greater part of the city wall, which is manifestly absurd, for it is quite clear that the preservation of Rahab's house is regarded as an entirely unique exception.

The Hebrew term translated "flat" literally means "under itself," and accordingly, as a last resort, some well-intentioned people whose devotion to the theory of "verbal inspiration" in its most exaggerated form is only excelled by their ignorance and disregard of science in general and archæology in particular, would forsooth reconcile the Biblical statement with the facts by the wholly gratuitous assumption that the wall *sank down* into the earth. It is hardly necessary to say that

there is not a particle of evidence to support this highly fantastic proposition.

The mode of expression is essentially Hebraic, and the translation "flat" in the Authorized and Revised Versions exactly conveys the sense and meaning of the term.

It has further been urged that the passage is not to be read literally, but that due allowance is to be made for poetic licence in its interpretation. The passage is, however, plain prose; there are no poetical phrases or forms, and the poetical theory is devoid of even a semblance of foundation. No reasonable person who is not blinded by prejudice or biased by a desire to bolster up an unsupportable theory can have any doubt as to the meaning of *Joshua* vi, 20. The writer obviously means that as the result of the blowing of the trumpets and the processional march of the priests, the wall of the city collapsed *as a whole*, the fall being in the nature of a miracle.

Ancient Megiddo was also surrounded by a city wall. Sections of this wall have been excavated by Dr. Schumacher<sup>1</sup> (cf. Fig. 21). The length of the brick wall is estimated at some 938 yards. Its height—from the lowest terrace wall to the summit—varies from 16½ to 34½ feet.

Reference has already been made to the comparatively late fortress at Tell Zakariya, but at an early date the inhabitants of Palestine learned to appreciate the value of a fortress in connection with or independent of the rampart. This fact is evidenced by a wall-painting in the tomb of Anti, an Egyptian soldier of the time of the Fifth Dynasty,<sup>2</sup> perhaps about 3600 B.C. The scene

<sup>1</sup> For details reference must be made to Steuernagel and Schumacher, *Tell el-Mutesellim*, p. 23 ff.

<sup>2</sup> Cf. Vincent, *Canaan*, p. 48.



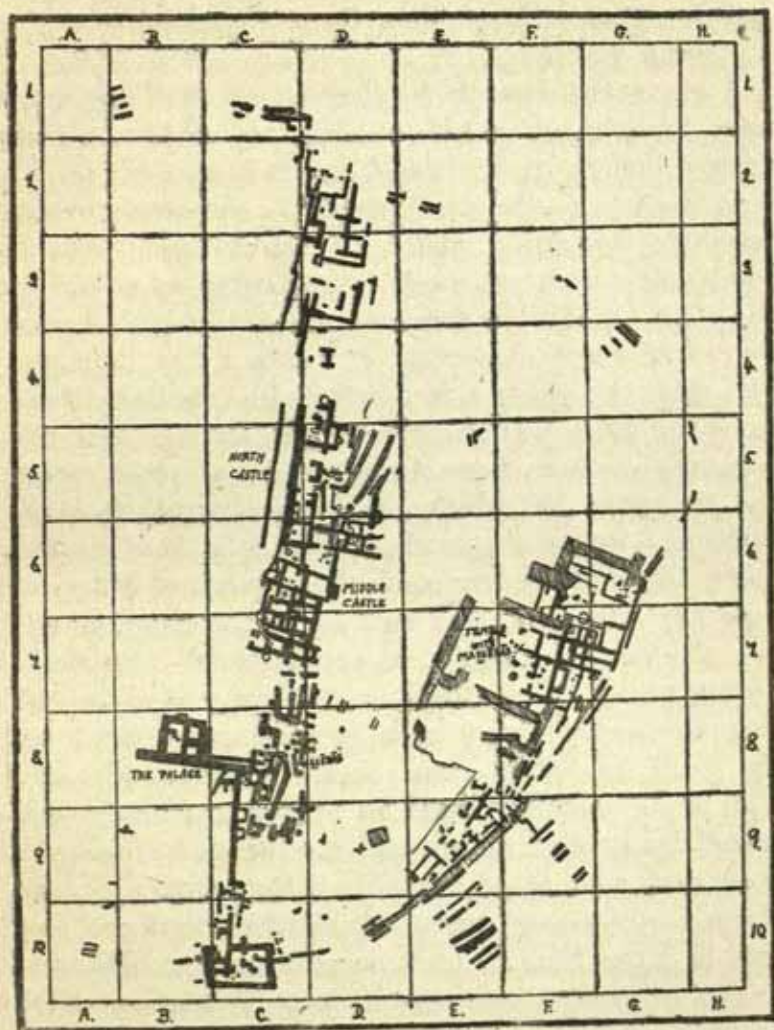


FIG. 21 (see *Tell el-Mutesellim*, Plate II).



represents an attack on the town of Sati, which was apparently situate in Southern Syria. The "town" in question is seemingly a small acropolis in which the Sati had taken refuge from the avenging hand of the Egyptian general.

The excavations at Megiddo (Tell el-Mute-sellim) have brought to light the remains of one of the most ancient Palestinian fortresses actually known.<sup>1</sup>

It belongs to the third stratum, and consists of a rectangle measuring about 38 yards from north to south, and about  $32\frac{1}{2}$  yards from east to west (cf. Fig. 21, 5 C, 5 D). Within this rectangular building is a court or central room measuring 21 yards 2 feet in length and about 15 yards 2 feet in breadth. It is separated from the main western wall of the fortress, and also from the southern front, by a number of small rooms, the character of which has been changed by later builders. Before the southern front is a kind of fore-court, in which were found the remains of pillars or *maṣṣēbās*, an oven, and hollows encircled by stones, one of which contained some animal bones. From the dimensions of the central hall and fore-court it is clear that they cannot have been entirely roofed over, but the small adjoining rooms seem to have had roofs. The latter doubtless consisted of clay and reeds, supported by wooden rafters, and the decayed remains of these roofs were found inside the rooms, while at several places in the citadel, stone rollers, which were probably used to flatten the clay roofs, were brought to light.

The main west wall rested on a foundation, which projects some 2 to 3 feet beyond the actual wall. It is partly composed of rubble stones and partly of bricks. The lower part of the wall itself consists of

<sup>1</sup> Cf. Steuernagel and Schumacher, *Tell el-Mutesellim*, p. 37 f., Plate XII.

from ten to twelve layers of loosely laid field and rubble stones, and varies from  $6\frac{1}{2}$  to 8 feet in height. They are arranged in the same characteristic way as the stones in the city-wall, the lower layers being set horizontally, those above being arranged obliquely. The larger gaps between the stones are filled in with small stones, mud mortar being used to give coherency to the whole. The wall is not of uniform strength throughout, but in the south it attains a thickness of some 8 feet—that is, including its projecting foundation. The inner core of the wall is composed of irregularly laid field stones and mud mortar.

Above this substructure, and in slight recession therefrom, are three courses of fairly regular slabs of limestone. The height of this part of the wall is  $3\frac{1}{2}$  feet, and its thickness about 3 feet 10 inches. The stones are better laid than in the lower part of the wall, the gaps between them being considerably smaller. The uppermost part of the wall consists of brickwork, most of which has been destroyed, but the original height of which was apparently not less than some 3 feet 10 inches. This brick wall varies from about 2 feet to 2 feet 3 inches in thickness. In the north, however, it is more or less as broad as the wall beneath, and has a thickness of from 5 feet 6 inches to 5 feet 10 inches.

Outside the main west wall is a trench, or ditch, some 8 feet broad and from  $6\frac{1}{2}$  to  $9\frac{3}{4}$  feet deep, on the other side of which there is a wall of slighter proportions. It begins at the same depth as the main wall, and its foundation at some places has a height of from 2 feet to 2 feet 4 inches. As in the case of the main wall, this foundation projects somewhat beyond the wall which it supports. The lower part consists of from seven to ten courses of rubble stones laid horizontally.



These are more regular and more rectangular than those used in the main wall, and this wall belongs to a somewhat later period. The top part of the wall was made of bricks, cemented together with mud mortar. On the inside of this counterscarp were débris of brickwork, stones, and cross-walls, alternated with two layers of ashes, which are the remains of another period.

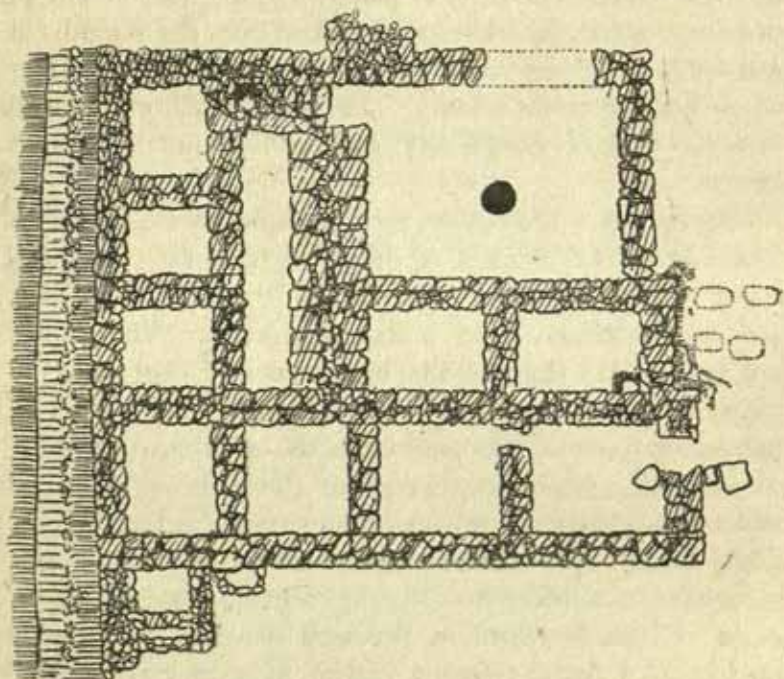


FIG. 22 (see *Tell Ta'annek*, p. 43, Plan III).

At the bottom of the ditch a jar containing the skeleton of an infant was discovered. This western wall with its ditch and glacis is the most interesting as well as the best-preserved part of the citadel, so far as military architecture is concerned.<sup>1</sup>

<sup>1</sup> For a full description of the various other walls forming part of this building, reference must be made to *Tell el-Mutesellim*, pp. 37 ff.



Fortified buildings of considerable importance have also been discovered by Professor Sellin at Taanach.<sup>1</sup> The west fort, which was erected about the sixteenth or fifteenth century B.C. and was destroyed about 1300 B.C., was built on the edge of the plateau (cf. Fig. 22). It covers an area about 65 feet square. The walls, which are ruined down to within 32 inches of the floor of the building, are about 3 feet 10 inches thick, and the style of architecture adopted is a mixture of the cyclopean and polygonal method. Instead of the friable lime-

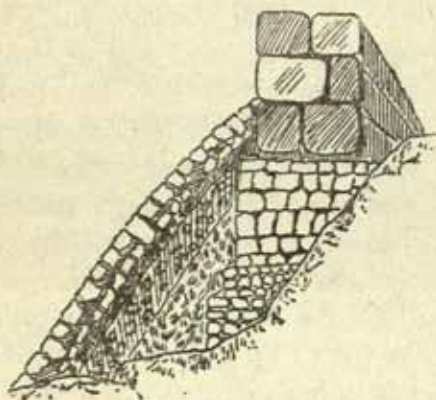


FIG. 23 (After Vincent, *Canaan*, Fig. 28).

stone of the neighbourhood, which is used as a building material elsewhere, a hard limestone quarried at a distance has been employed.

The western wall of the fortress, which was the most open to attack, was founded on the rock, and is strengthened by three thick beds of solid stonework arranged in steps (cf. Fig. 23). The substructure thus built on the rock consists first of all of a layer of pebble concrete, some 2 feet 2 inches high; the next layer, which is made of the same material, recedes about

<sup>1</sup> Cf. Sellin, *Tell Ta'anek*, pp. 43 ff.

4 inches upon that below, and is only about 13 inches high; above this is a layer of larger stones, which likewise recedes about 4 inches on the foregoing layer, and has a height of about 4 feet 2 inches; then comes the actual foundation of the wall, which again recedes 4 inches behind the upper portion of this substratum, and is also made of concrete. It is surmounted by three courses of stones, and, with the stones, measures about 5 feet 8 inches in height. The foot of the wall is protected by a glacis, consisting of a bed of gravel and mortar next to the wall, about 1 foot 6 inches deep, then a bed of earth some 6 inches deep, and lastly a covering of pebble and mortar concrete about 1 foot 4 inches thick.

The other sides of this fortified building did not require such elaborate defensive preparations. The northern side was strengthened by a massive projecting tower; this tower is near the middle of the wall, and thus covered the two parts of the wall on either side. The wall on the eastern front is graduated like a flight of steps (see Fig. 22), an arrangement which obviously afforded a greater protection than a perfectly regular line. The southern wall was protected by the small castle which guarded the entrance. This is situate at the south-west corner, and the entrance itself was apparently on the south side, but its disposition is not quite clear. Evidence of the practice of offering foundation sacrifices was afforded by the discovery of a small grave to the east of this castle and at the foot of the main wall, which contained the remains of a child who had evidently been offered in sacrifice when the foundations of the building were laid. There were possibly two other gateways, one on the north covered by the central bastion, and one on the east (see the figure).



The apartments inside the fortress are planned with great regularity, and the partition walls are constructed in the same way, and are also as thick as the outer walls, while indeed the central wall which separates the court from the corridor which gives access to the rooms on the west is very much thicker. The floor throughout the building is paved with a kind of concrete, except in the court, in the middle of which there was a cistern. This fortified building belongs to the Canaanite Period.<sup>1</sup>

Another Canaanite work at Taanach of exceptional interest is that associated with the name of Ishtar-washur.<sup>2</sup> It is a large fortified building towards the north of the Tell, apparently the residence of Ish-tar-washur, the governor of Taanach. This edifice resembles the building just described both in style of architecture and also in the materials used in its construction, though it is apparently of somewhat later date.<sup>3</sup> Unfortunately the building is in too great a state of ruin to admit of even a provisional ground-plan, and it is chiefly interesting on account of the cuneiform tablets discovered therein. These tablets belong to the Tell el-Amarna series, and consequently the building must be assigned to the fifteenth century B.C.<sup>4</sup>

On the east of the mound, on the other hand, we have the remains of a fortress<sup>5</sup> of much later date (cf. Fig. 24). It is polygonal in shape, the two largest sides, east and north, measuring about 77 feet 4 inches and 74 feet 9 inches respectively. The eastern wall has

<sup>1</sup> Cf. Sellin, *Tell Ta'annek*, p. 52.

<sup>2</sup> Cf. *ib.* pp. 37 f., 102; *Eine Nachlese*, pp. 7 f.

<sup>3</sup> Cf. Sellin, *Tell Ta'annek*, p. 53.

<sup>4</sup> For the contents of these tablets see further, p. 301.

<sup>5</sup> Cf. Sellin, *Tell Ta'annek*, pp. 21 f.



a bend just about the middle, following the natural bend of the edge of the mound. At this bend there is a projection which covered both sections of the wall. At its southern end it forms a wide angle with

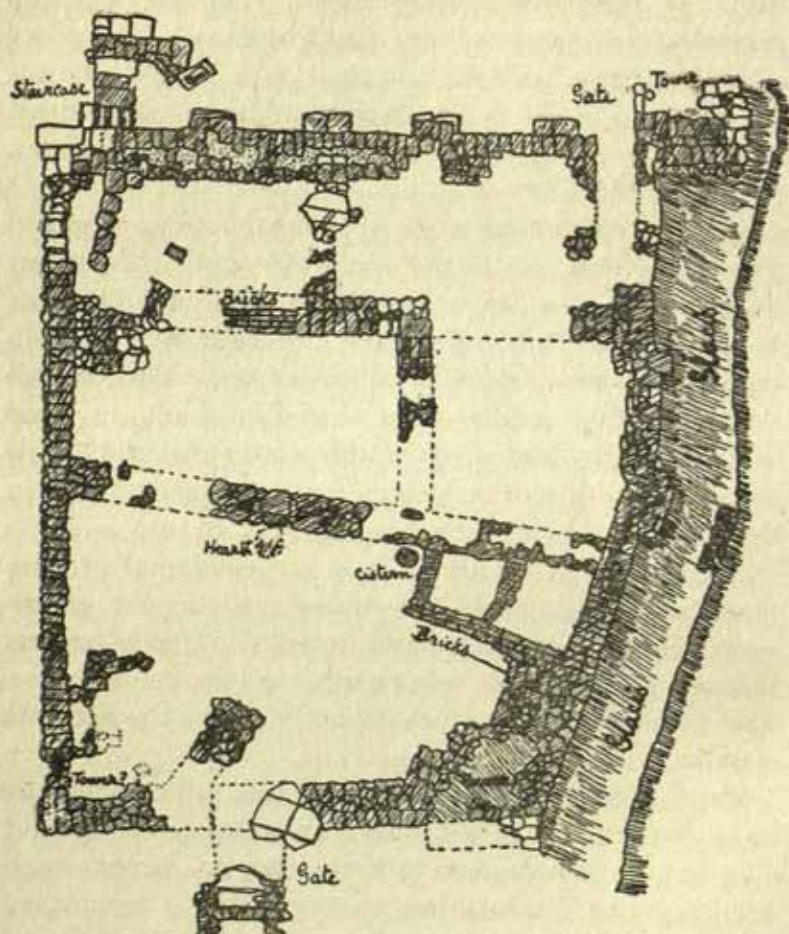


FIG. 24 (see *Tell Ta'annek*, p. 21, Plan I).

the southern wall, which is not parallel to the northern wall. All the corners of this enclosure are strengthened by quadrangular towers, the best preserved of which is that at the north-east corner. This tower is 13 feet

broad, and projects some 9 feet 9 inches from the wall. The two towers on the south encroach on the area of the fortress; that at the south-west corner is in exact alignment with the wall itself, while that at the south-east corner apparently projected from the wall. Of the north-west tower there remains but a small part of the northern wall and a few steps of an interior staircase, which indicate that this bastion contained casemates.

The curtain between the north-west and north-east corner towers was further strengthened by four pilasters, projecting from the wall about 19 inches, and having a breadth of about 4 feet 10 inches. Another pilaster of smaller dimensions occurs in the east wall between the bastion and the redan. The gate in the south wall was apparently guarded by a tower projecting some distance from the wall. In a massive stone slab forming part of the threshold a deep socket was found, in which no doubt the hinge of the gate revolved.

The limestone blocks used in the enclosing wall are well squared and carefully dressed, and show a distinct advance on those used in the earlier buildings. The courses average between about  $17\frac{1}{2}$  and  $21\frac{1}{2}$  inches in height. The blocks are almost always set with their small faces outwards, except in the case of corner-stones. The walls essentially consisted of two facings of stone, the space between which was filled in with pebbles or *pisé*. The larger interstices were filled with small stones and pebbles, while the lime mortar used, served to stop up the smaller chinks and added to the compactness of the whole. So far as can be judged the average thickness of the walls would be from about 5 feet 8 inches to 5 feet 10 inches.<sup>1</sup>

This fortress probably belongs to the Solomonic

<sup>1</sup> Cf. Vincent, *Canaan*, p. 60, n. (2).



Period. The brickwork found here and there throughout the building apparently represents the remains of earlier buildings, the bricks being readapted for use in the present work.

Some 54 yards to the north of the castle is an independent tower—a kind of outpost.<sup>1</sup> This tower is more or less rectangular in shape, and measures about 31 feet by 23 feet 2 inches. The rock has been cut away on the south side as a preliminary to laying the first course of stones. The enclosed space is levelled up by means of a masonry platform, which brings the lower parts up to the height of the natural rock on the western side, while the walls on the southern, eastern, and western sides vary in *actual* height according to the slope of the hill. The blocks of stone used in the construction measure mostly about 3 feet in length; some, however, attain a length of 5 feet 6 inches.

On the west side there is an outward wall which possibly connected this little fort with the rampart of the town.<sup>2</sup> In the northern wall there are four loopholes, doubtless made to facilitate the defence of the wall on this side. They are formed by five stone blocks, about 2 feet 7 inches high, erected at intervals of 3 feet 3 inches upon the last course of the base of the wall.

In other respects this little tower closely resembles the eastern citadel in style and technique, and belongs to the same Solomonic Period, that is to say about the tenth century B.C.

The remains of yet another fortress of still later date were discovered at Taanach in the northern part of the plateau. This fortress appears to have covered an area

<sup>1</sup> Cf. Sellin, *Tell Ta'anneh*, p. 31.

<sup>2</sup> Cf. Vincent, *Canaan*, p. 62.



of 260 square yards. It was erected about the eighth century B.C., and is much inferior in workmanship to those of earlier date. The walls are only about 2 feet 3 inches thick, while the stones of which they are composed are for the most part carelessly fashioned, and there is not a trace of any mortar.

One of the most recently discovered fortresses in this part of the world is that at 'Ain el-Guderat in the wilderness of Zin (cf. Fig. 25).<sup>1</sup> It is a long rectangular

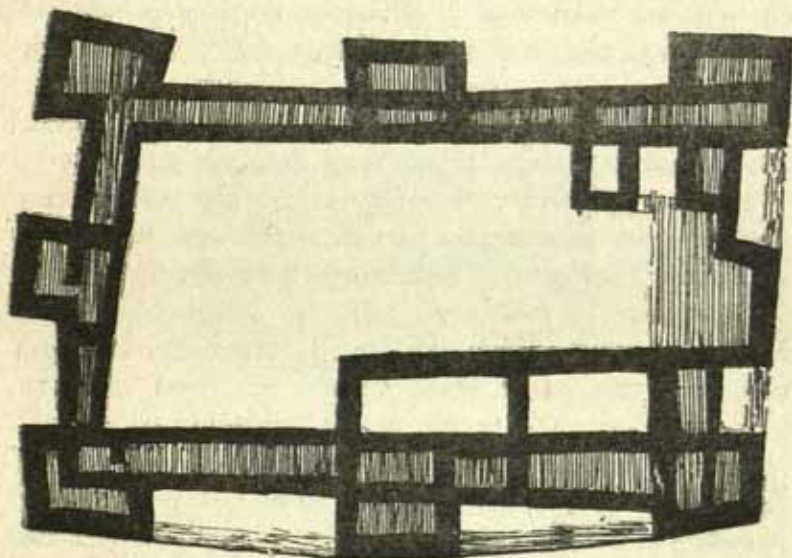


FIG. 25 (see *P. E. F. Annual*, 1914-15, Fig. 8).

building about 80 yards long and 50 yards broad. The lower 10 feet of the walls are enormously thick and solid throughout, but above that height they are "mere shells of built stone" containing rooms or corridors. The walls are faced with thin but well-set blocks of stone, some of which measure as much as 3 feet in length; the inner part is composed of large stones, pebbles, and mud.

<sup>1</sup> Cf. Woolley and Lawrence, *Palestine Exploration Fund Annual*, 1914, pp. 64 f.

The corners of the fortress are strengthened by projecting towers, and there is a similar tower in the middle of each of the four faces of the building. The sides of one of the rooms excavated on the top of the wall were found still standing to a height of a yard or more. The area within the fortress is only partially excavated. In the eastern half there is a kind of platform, "level with the present top of the enceinte, and with obvious signs of party walls that crossed and re-crossed it, making a complex of chambers."<sup>1</sup> There is apparently no evidence of any chambers in the western half of the fortress area.

The date of this remarkable building seems doubtful, but it would appear to be not later than 900 B.C.<sup>2</sup>

The vast majority of buildings within the walls of the ancient cities of Palestine are either private houses or granaries, but before discussing these let us briefly consider one or two large buildings which have been discovered, and which, although apparently not fortresses in the strict sense of the term, yet seem to have partaken of a public or semi-public character.

One of the earliest of these buildings is a palace at Gezer belonging to the First Semitic Period,<sup>3</sup> and therefore not later than the early part of the second millennium B.C. It consists of a large complex of chambers erected just within the great brick gateway. To the south-east are a number of small chambers, in two of which were found the bases of pillars which evidently at one time supported the roof. One of these small chambers clearly served as a granary, for a row of jars containing burnt grain was found therein. To the west of this group of chambers was a large

<sup>1</sup> Cf. Woolley and Lawrence, *Palestine Exploration Fund Annual*, 1914, p. 66 f.

<sup>2</sup> Cf. *ib.* p. 67.

<sup>3</sup> Cf. Macalister, *Gezer*, i, p. 205, and iii, Plate II, 27-30.



courtyard, in the centre of which opened the entrance to the great water-passage (cf. p. 53 f.). In the north was "a large hall with two aisles separated by a partition wall: the northern of these aisles had the roof supported on pillars resting on massive stone bases. This probably was some kind of public judgment hall." Early as this building was, yet walls of still earlier structures were found beneath the floor of the pillared hall.

Another large building, presumably also a palace or a governor's residence, was built to the north of the one just described.<sup>1</sup> It was erected in the Second

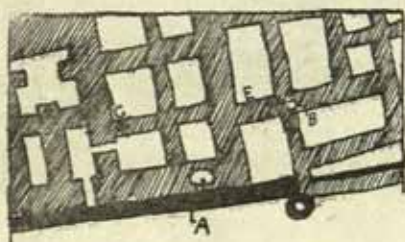


FIG. 26 (see *Gezer*, Plate XLIX, 2).

Semitic Period. It is smaller but much more complex than that of the preceding period, and it is built partly of brick. Like its forerunner, it contains a pillared hall and also a large granary.

The plan of a remarkable building erected at Gezer<sup>2</sup> in the later part of the Second Semitic Period or the early part of the Third is shown in Fig. 26. The walls of this structure (cf. Plate XII) are made of brick with a stone revetment, and are very substantial, and the rooms are well planned and carefully laid out. The bricks are sun-dried, and are as a rule about 1 foot

<sup>1</sup> Cf. Macalister, *Gezer*, i, p. 206.

<sup>2</sup> Cf. *ib.* i, p. 170.



4 inches long and 5 inches high. At A and B (see the plan) there are two hollows in the walls. The first of these is oval in shape, and measures 4 feet 9 inches by 3 feet 10 inches, its present depth being 2 feet 3 inches. The second is square, measuring 2 feet 3 inches in length and breadth and 6 inches in depth. These are no doubt to be explained as store cupboards. At E there was an oven.

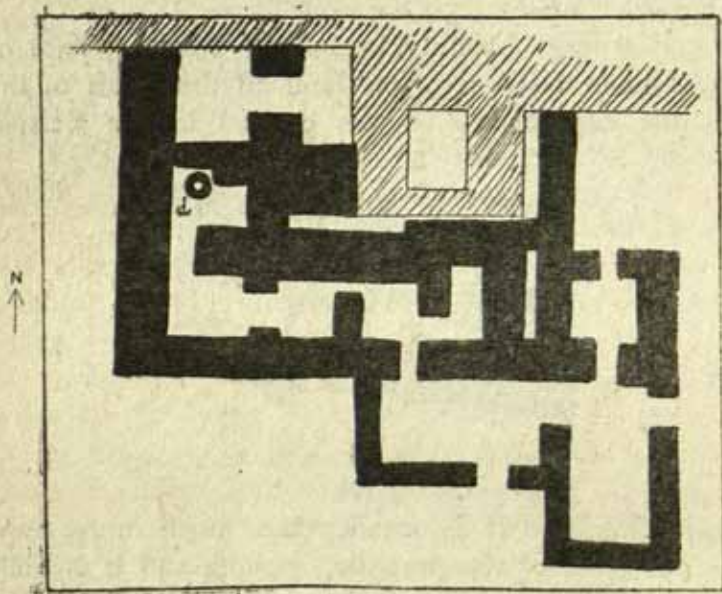
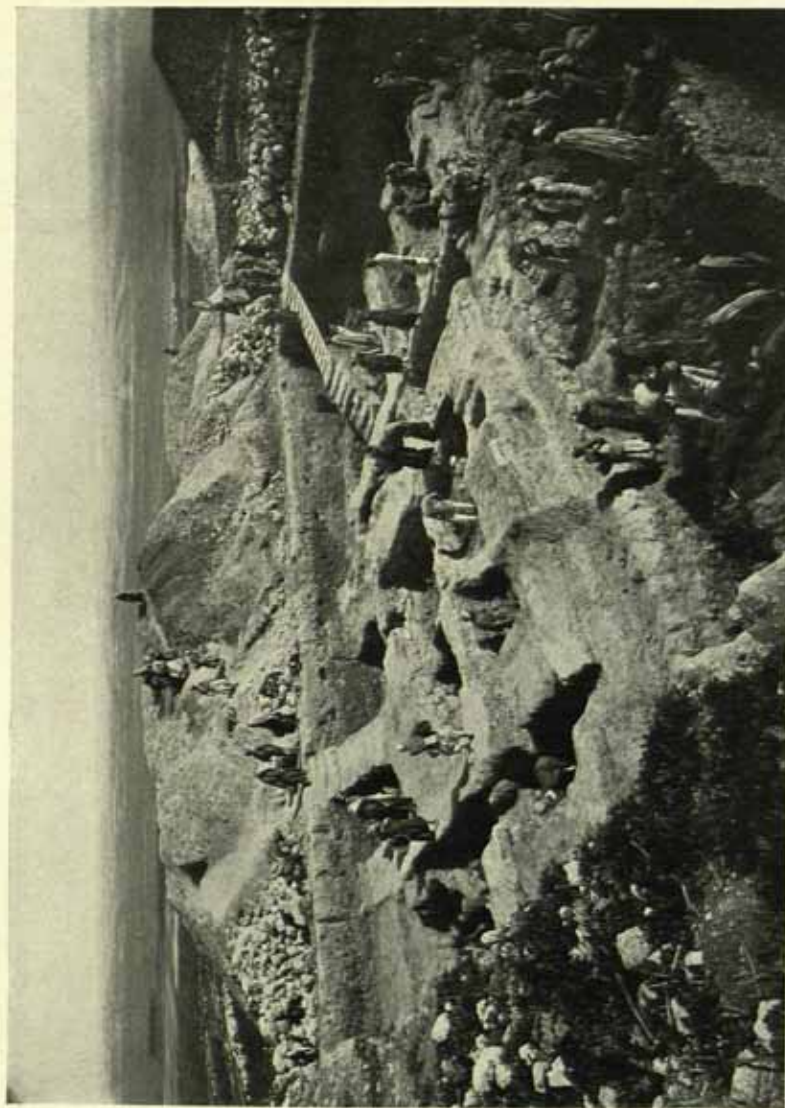


FIG. 27 (see Macalister, *Geser*, i, Fig. 97).

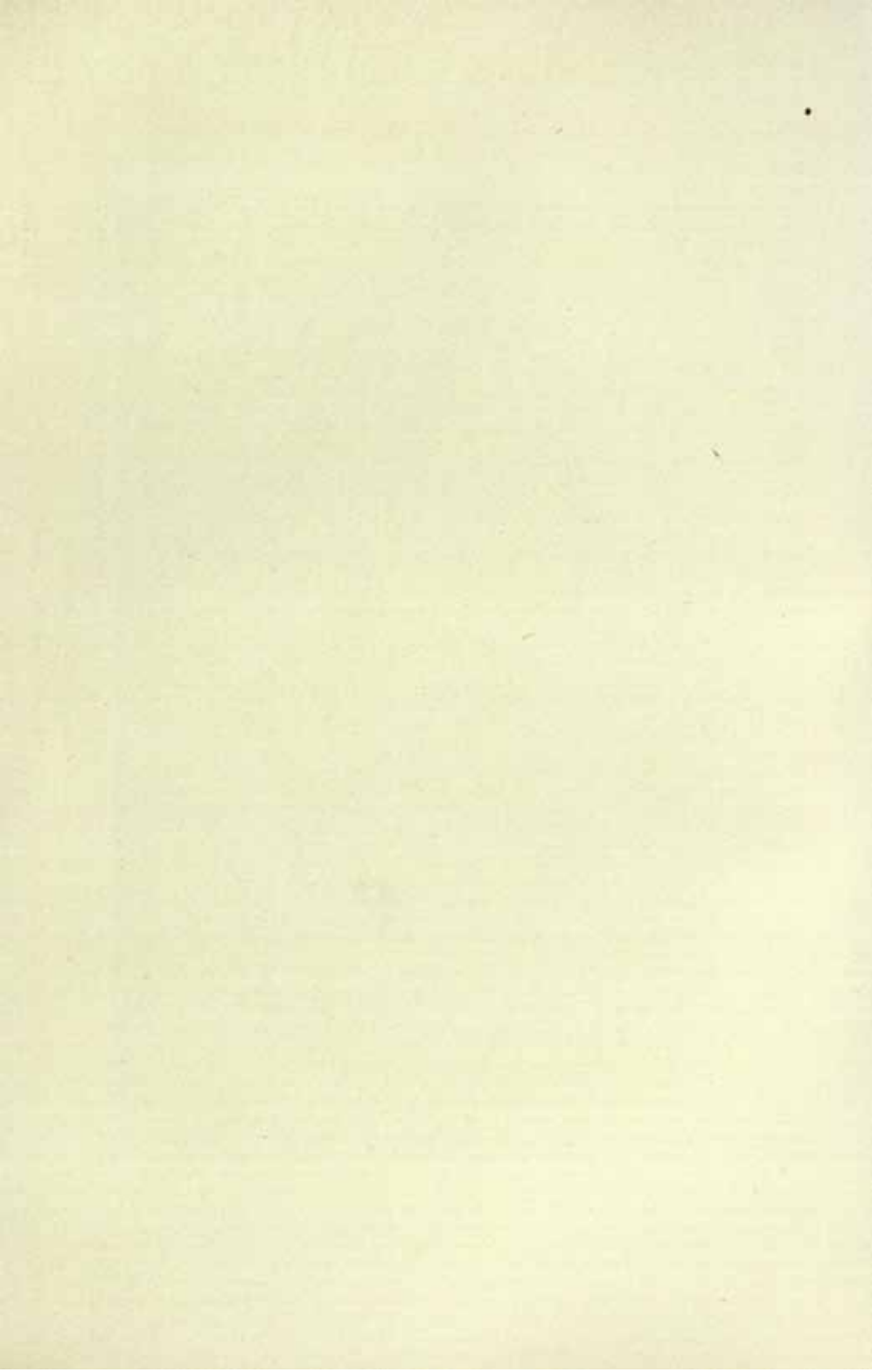
The plan of an important building found on the same site, and belonging perhaps to the Third Semitic Period, is represented in Fig. 27. It consists of a series of small irregular chambers grouped round one of the towers of the much earlier inner city wall, against which the walls of the building abut without bonding, while the old rampart serves as the back wall of the building, as in the case of some of the Canaanite houses at Jericho, though the latter were apparently



(By kind permission of the Palestine Exploration Fund.)

LARGE BRICK BUILDING AT GEZER.

(From Gezer, Fig. 58.)





contemporaneous with the city-wall with which they are thus associated.<sup>1</sup>

The entrance to this building, which is on the south, admits to a hall which communicates by doorways with the other parts of the building. It will be observed that some of the chambers show no trace of a doorway; no doubt the explanation of this is that the walls are ruined down to below the level of the threshold. The compartments vary considerably in size, but they are all rectangular in plan.

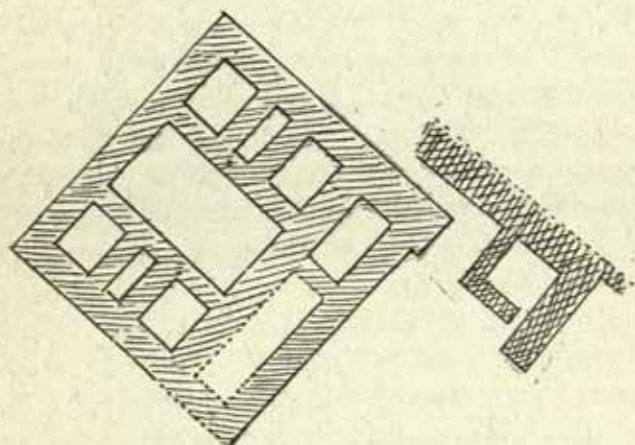


FIG. 28 (see Bliss, *A Mound of Many Cities*, p. 72).

The walls range in thickness from about 3 to 9 feet —“the latter by far the greatest wall-thickness found at Gezer, with the exception of the city-wall itself.”<sup>2</sup> The little circular structure *d* was probably a hearth.

A palatial building, to some extent resembling the Gezer castle just described and belonging to about the same period, was discovered at Lachish (cf. Fig. 28).<sup>3</sup>

<sup>1</sup> Houses built against the city-wall were also discovered at Lachish (cf. Bliss, *A Mound of Many Cities*, p. 114).

<sup>2</sup> Cf. Macalister, *Gezer*, i, p. 207.

<sup>3</sup> Cf. Bliss, *A Mound of Many Cities*, pp. 71 ff.

It forms an almost perfect square, the sides of which are about 55 feet long. The ruined walls, which are made of brick, stand to a height of about 3 feet. They vary in thickness from 5 feet 4 inches to 5 feet 8 inches. There is no evidence of any gateway, the walls being ruined to below the threshold as elsewhere. Its north-east wall runs close to and more or less parallel to the city wall, one of the towers of which occurs at a short distance from the north-east corner of the building (cf. the plan). The rooms inside exhibit the same symmetry as the building. The largest room measures 30 by 15 feet, while the two narrow rooms, north and south of the main room, measure 11 by 4 feet, and consequently have a lesser width than their encompassing walls. This building was found beneath some 30 feet of superimposed débris, and was probably used for some public purpose in the time of the Fourth city. It may therefore be provisionally assigned to the fourteenth century B.C.

The remains of an important building, assigned to the Israelite Period and also apparently of a military character, were unearthed on the *Quellhügel* at Jericho (Fig. 29).<sup>1</sup> The foundations of this large structure are laid on the south-east slope of the mound. The walls in their present ruined condition vary from about 2 feet 7 inches to 9 feet 9 inches in height, while their thickness varies from about 4 feet 10 inches to 5 feet 10 inches. The building exhibits the *Cyclopean* technique already referred to (see p. 94), the walls being constructed of large irregular blocks of stone, only the outer faces of which are roughly hewn. These blocks are piled one on top of the other, and the interstices are closed with small stones, no mortar of any description being used.

<sup>1</sup> Cf. Sellin-Watzinger, *Jericho*, pp. 67-70.



It consisted essentially of two long rectangular chambers lying one behind the other. They have an average length of about 34 feet and an average breadth of about 12 feet. At the back of these there is a third

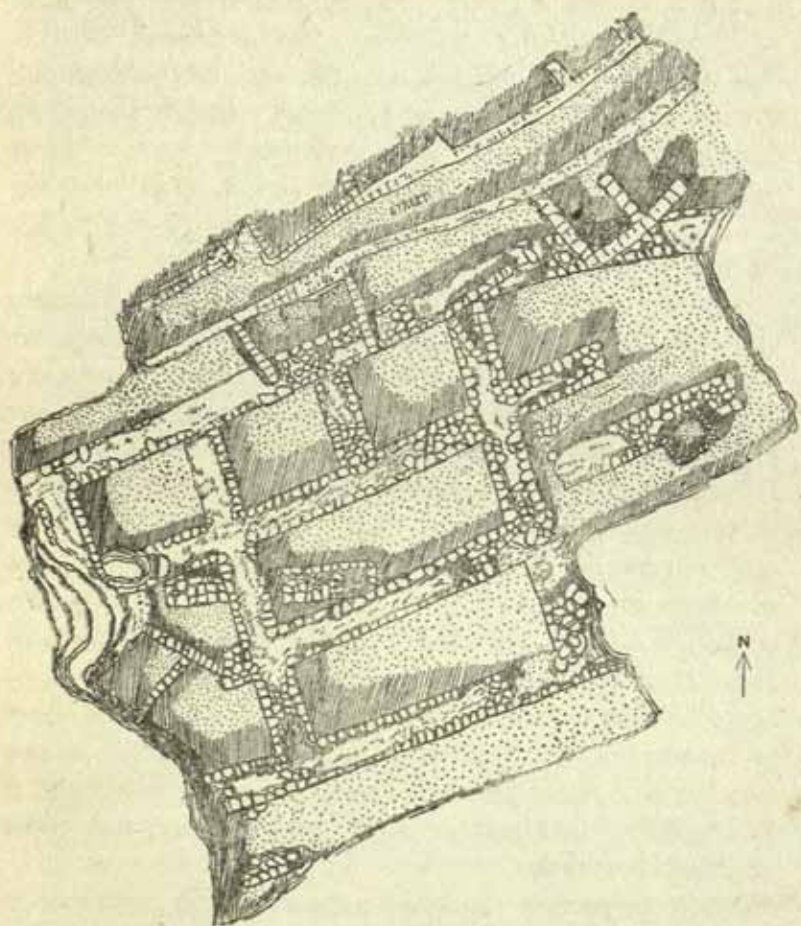


FIG. 29 (see Sellin-Watzinger, *Jericho*, Tafel IV).

room of about the same dimensions ; the latter is divided into two compartments about 14 feet 4 inches to 14 feet 8 inches broad and approximately 12 feet 4 inches deep. The back wall of these two rooms is especially



strong, and is preserved to a considerable height. It is continued to the north for about 35 feet 9 inches and to the south for about 22 feet 9 inches. From the southern continuation of this wall runs a cross-wall in a south-easterly direction and parallel to the west wall of the long double chamber. The fore-wall of this chamber is continued in a south-westerly direction; the ends of this prolonged fore-wall and the cross-wall which runs practically at right angles thereto, have unfortunately disappeared, but it is obvious that we have here a third room, measuring about 15 feet 8 inches by about 11 feet.

The fore-wall of the southern rectangular chamber and the partition wall between the two rectangular chambers are similarly prolonged to the south-west, and accordingly there must have been two more rooms on the south-west side of the building.

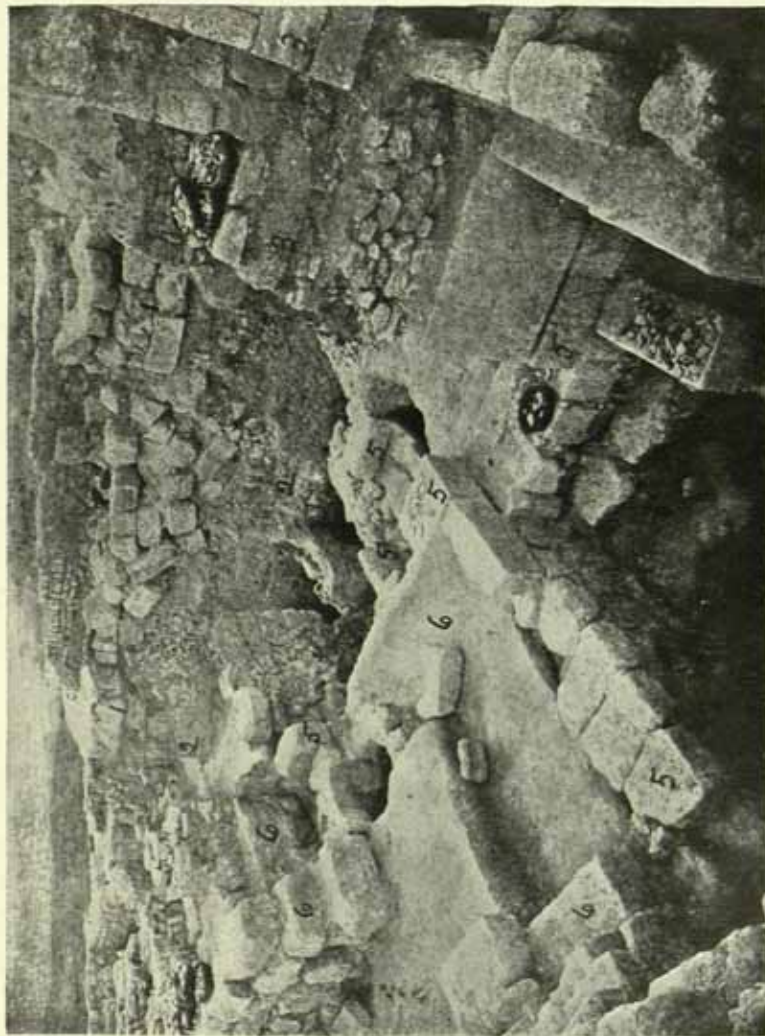
Similarly on the north-east side there are clear indications of the existence of other chambers. The pottery found in this building is Israelite, and the building belongs to about the tenth or ninth century B.C. The thickness of the walls and the depth of the foundations of this symmetrically conceived building might lead one to suppose that it was a fortification work of some kind or other, rather than a palace or a dwelling-house, but both of these features would be easily explained if the building had two or more stories, which was quite possibly the case.

This important building shows some affinity to the developed form of the *Hillâni*<sup>1</sup> of the Assyrian inscriptions, like the fortress at Megiddo.<sup>2</sup> It thus

<sup>1</sup> Cf. Koldewey, *Ausgrabungen Sendschirli*, ii, pp. 183 ff.; Puchstein, *Arch. Jahrbuch*, 1892, pp. 9 ff.

<sup>2</sup> Cf. *Mitteil. und Nachricht. des Deutsch. Pal.-Ver.*, 1905, pp. 5 ff.; Sellin-Watzinger, *Jericho*, p. 69.

PLATE XIII



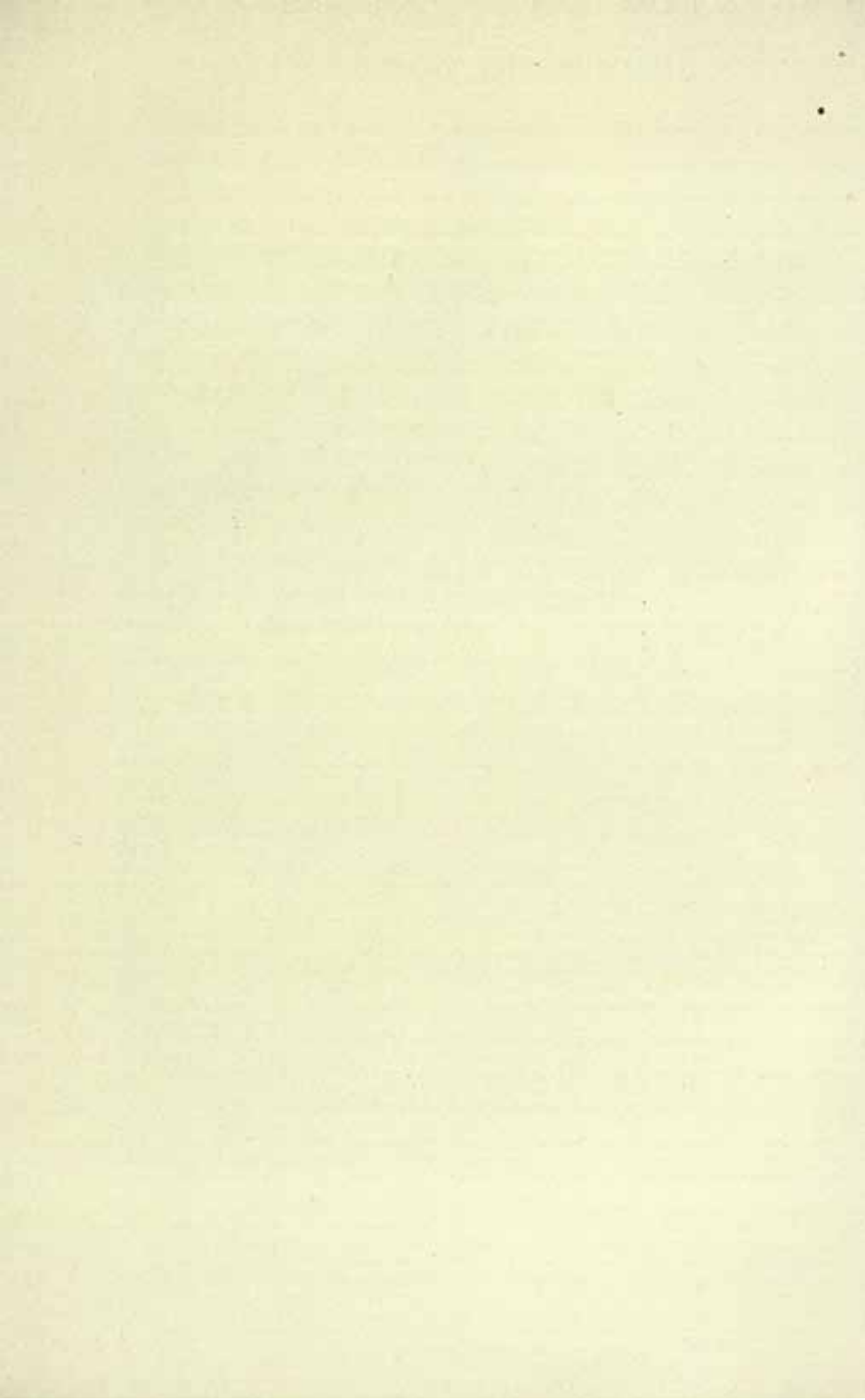
(Latest Light on Bible Lands, Fig. 98.)

(By permission, from the "Harvard Theological Review," vol. III, Plate 7.)

ISRAELITE ROOMS AT SUMMIT, LOOKING SOUTH-WEST. 1 = SEPTIMIUS SEVERUS; 2 = HERODIAN;

3 = GREEK; 5 = AHAB; 6 = OMRI.

To face p. 130.





appears that the fundamental idea of a broad building with the entrance in the long side, which is found in Hittite lands as well as in Egypt, also obtained in Palestine. This broad building is in point of fact only a development and elaboration of the primitive ground-plan to which the houses of the Israelite Period more or less accurately conform, namely, a long room with smaller rooms lying parallel and adjacent thereto, the elaboration of the building in question consisting of an addition of a group of symmetrically arranged rooms.

One of the most interesting buildings discovered in Palestine—from the purely Biblical point of view—is the palace of Omri and his notorious son Ahab at Samaria. Unfortunately plans and details in regard to this building have not as yet been forthcoming. It is erected on the summit of the hill. The remains consist of a series of massive walls built of large limestone blocks laid on the rock, and they form part of one great building. The rock is everywhere dressed to receive the palace walls, and there is no trace of any kind of earlier buildings (cf. Plates XIII and XIV).

There are apparently three periods in the history of this renowned palace. It was commenced by Omri, whose work is distinguishable from that of his successor Ahab by being more massive and less finished. Ahab's alterations mainly consist in additions to the original structure; these were made on the southern and western slopes of the mound. The masonry of this period shows finer joints and smoother surfaces, and in general displays better workmanship. The work of the third or latest period is poor in quality and insignificant in quantity, and consists of a few minor alterations. This building had already, on archæological grounds, been assigned by the excavators to Israel's heyday, and the

subsequent discovery of an alabaster vase inscribed with the name of Osorkon II corroborated their independent opinion. Osorkon II, King of Egypt, was the contemporary of Shalmaneser II, King of Assyria (860–825 B.C.), and was, therefore, the contemporary of Ahab. This discovery is of supreme value owing to the disturbance of this site in successive periods, and the consequent difficulty of assigning dates to all that the excavations there have brought to light.

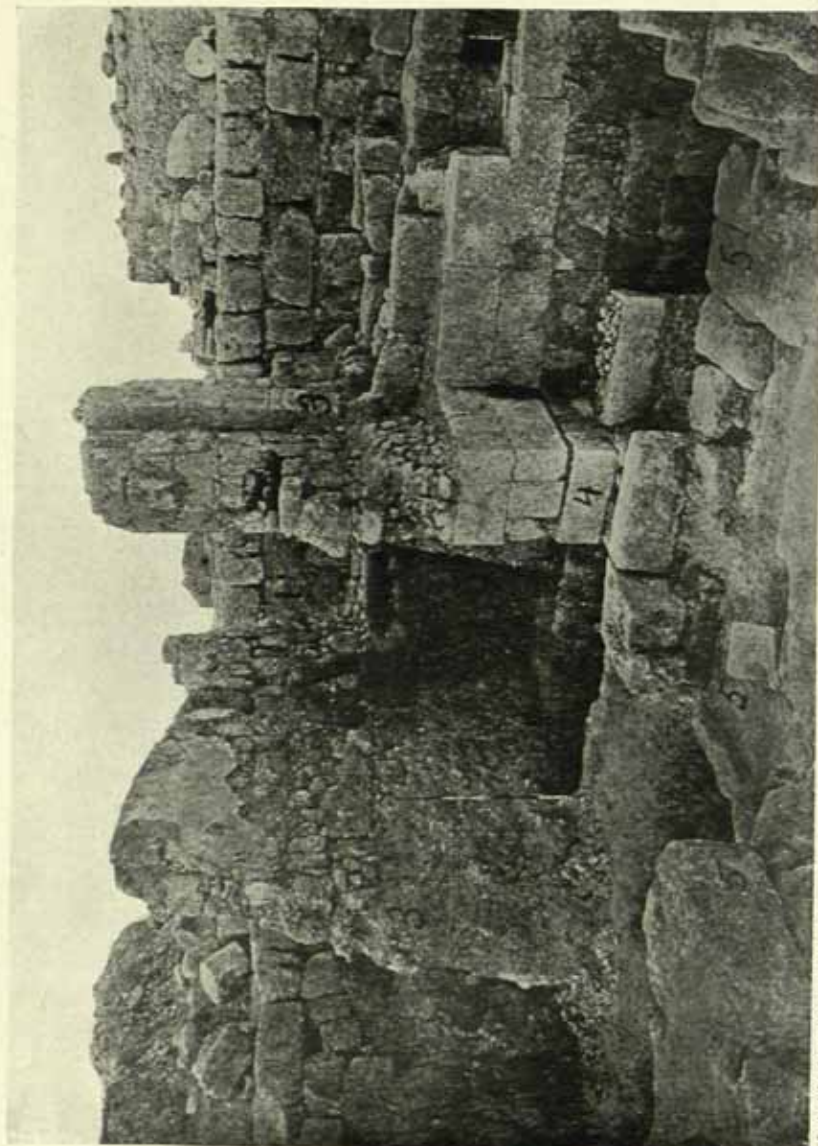
Another interesting building, evidently of a public character and very possibly a palace, was discovered by Dr. Schumacher at Megiddo,<sup>1</sup> and was partially excavated by him. It belongs to the fifth stratum (cf. Fig. 21, B C 8, 9, 10). The principal feature is a large rectangular hall measuring 65 yards from north to south, and having a breadth of about 35 yards 2 feet. It is enclosed by a wall some  $3\frac{1}{2}$  feet thick, composed of large blocks of limestone.

The plan of the building is not very clear. In the middle of the northern wall there is another building, the southern wall of which is partly built over the northern wall of the palace. This adjoining building is nearly 12 yards square, and contains three dwelling-rooms. The thickness of the walls varies from above  $3\frac{1}{4}$  to  $4\frac{1}{2}$  feet. The stones of which they are made are carefully chosen, and their faces are well dressed. The lower part of these walls consists of from three to five courses of ashlar, arranged step-wise so that the lower courses project from 8 to 19 inches beyond those above. The coursing is regular, and the irregularity incident to the conglomeration of field and rubble stones packed with mud and mortar, which was the mode of building in earlier times, has disappeared.

The upper part was made of bricks in which straw

<sup>1</sup> Cf. Steuernagel and Schumacher, *Tell el-Mutesellim*, pp. 91 ff.





*(Lateral Light on Bible Lands, Fig. 99.)*

ISRAELITE WALLS WITH SUPERIMPOSED SELEUCID WALLS. 3 = SELEUCID ; 4 = AHAB ; 5 = OMRI.

*(By permission from the "Harvard Theological Review," vol. III, Plate 8.)*





was used as a binding material. Charred wood was found intermingled with the débris of bricks—very possibly the remains of the wooden rafters which at one time no doubt supported the roof.

In a room over the east wall of the palace-court, and belonging to the succeeding period (i.e. the sixth), were found six *maṣṣēbās*.<sup>1</sup> The room in question is 29 feet 3 inches long and 19 feet 6 inches wide. They stand upon a stone foundation, which in its turn rests upon a substratum of clay. The latter has sunk here and there owing to the weight of the *maṣṣēbās*. With the exception of the three *maṣṣēbās* in the northern part of the room which are arranged in a row (the two outer monoliths, however, being by no means equidistant from the central one), there appears to be no particular connection between them. The central one of the three *maṣṣēbās* in the north has a mason's mark, but the other two have no marks. Two of the remaining *maṣṣēbās* are built into or form part of the eastern wall of the room, while the sixth is more or less in the centre of the room, some 7 feet 10 inches south of the central *maṣṣēbā* in the north. These three monoliths all have masons' marks. Associated with these *maṣṣēbās* was a stone, on the upper surface of which a round hollow, about 9 inches in diameter and 6 inches deep, had been excavated. Near this stone, in a bed composed of ashes, fragments of pottery, and earth, was an incense altar.<sup>2</sup> On the south side of the room is a baking-oven, having an internal diameter of about 2 feet 5 inches, and a depth of about 1 foot 9 inches. The lower part of this fireplace is built up with stones, while the upper part, which is the oven proper, is enclosed by

<sup>1</sup> Cf. Steuernagel and Schumacher, *Tell el-Mutesellim*, pp. 125 ff.

<sup>2</sup> Cf. *ib.* pp. 126-7; Abb. 190 and the frontispiece to vol. B (Plates). See below, pp. 175, 176, Fig. 44, (45).

a double casing of terra-cotta, which was thickened and strengthened by a further casing composed of pottery fragments and mud mortar. Upon the floor of the oven, which was paved with stones, lay a quantity of ashes.

The plan of ordinary private houses, on the other hand, is often impossible to determine. They are as a rule built over the ruins of earlier houses, and are made of crude or baked bricks laid on a rubble or stone foundation set in mud. Generally speaking, rubbish and organic matter was allowed to accumulate in the streets, such as they were, and this had the effect of raising the level of the city. At Gezer, for example, it is estimated that the level of the city was thus raised at the rate of about 1 inch in six years.<sup>1</sup> Further, the streets themselves lacked the characteristic permanence of modern thoroughfares. Another difficulty is that the houses as a rule have much the same plan and are built in much the same way in each succeeding period, and consequently a mere inspection of these ruined houses, apart from an analysis of their contents, will afford little or no indication as to their date. Further, the whole of the area within the city-wall was not in all cases occupied at once, open spaces being sometimes left. Then again, the deposits found amid the ruins of a particular house are often no indication as to date, because on the one hand the ruined material of the old house was frequently used in the construction of the new building, and the consequent upheaval resulted in the removal of objects belonging to the earlier period into a stratum which they ante-date. On the other hand, the foundations of the new house were in many cases sunk into a stratum of earlier date than that to which the building actually belongs, and the walls are in such cases found associated with deposits of an earlier period. Moreover, the

<sup>1</sup> Cf. Macalister, *Gezer* i, p. 159.



majority of these ancient cities have been at one time or another subject to fire or some other levelling catastrophe; when the whole city was thus involved and resulted in a bed of ashes, as was the case at Lachish the chronology is obviously simplified, but in some cases, as for example at Gezer, where plenty of evidence is forthcoming of large local fires, but there is no sign of a universal conflagration, the problem is still further complicated. Lastly, the absence of roofs and even doorways—the houses being in numerous cases ruined to below the thresholds—creates yet another difficulty. The disappearance of the thresholds is probably accounted for by their height above the ground. The thresholds of the houses of the modern *fellahin*, which appear to resemble those of the ancient inhabitants in many respects are generally lofty—sometimes over 3 feet high.

As each man built his house according to his own taste and requirements, it is, apart from the foregoing considerations, next to impossible to attempt a *detailed* plan of a normal Canaanite house, and the available information is useful for the light it throws upon the mode of construction rather than upon the actual shapes which the buildings assumed. But before passing to a consideration of these broader and more fundamental aspects of early Palestinian architecture, some remarks upon a few typical houses may not be entirely superfluous.

It has already been observed that buildings were occasionally erected against the city wall. Some of these buildings were very possibly used for military purposes. Such, for example, would appear to have been the case with the northern part of the group of houses at Jericho, represented in Plan II.<sup>1</sup> This block of Canaanite houses, which is more or less rectangular in shape, is divided into two parts by a street about 6 feet 6 inches

<sup>1</sup> Cf. Sellin-Watzinger, *Jericho*, pp. 33 ff.

broad. North of this street are three lofty walls, almost parallel to each other, and lying from east to west, their stone foundation and brickwork being, as it were, incorporated into the inner Canaanite wall, and even to-day they reach the top of that wall. This northern group in its entirety consists of seven long rooms with common partition walls which were erected uniformly with the city wall. Large amphoræ and store-vessels were discovered within these buildings, which proves that they were used for the storage and preparation of food. In the inner face of the city-wall, which apparently served as a back wall to the fourth room, there are three deep round holes for wooden beams, which possibly served as supports to stairs leading to an upper story, or rather to the roof. From this height the top of the wall could be reached by wooden steps or a ladder. The two long walls of this fourth room, as also the part of the main city-wall which served as its back wall, are constructed on the top of earlier foundations. The fortifications were evidently erected in great haste, for on one occasion the builders had apparently not found time to remove the store-vessels out of the earlier rooms, and one of these vessels was discovered lying in the débris half under the foundation of the wall. The difference between the stratification level of this earlier house and the foundations of the casemate is so slight, that only a very short interval can have elapsed between the destruction of the house and the erection of the fortification groundwork. It thus appears evident that the houses of the earlier town extended over the region through which the northern part of the rampart now passes, a fact which might otherwise be presumed from the passage of the earlier city-wall underneath and beyond the northern part of the inner and protecting walls (cf. pp. 83, 84).



South of the street are the remains of other houses.<sup>1</sup> Both the street and the houses in question belong to the same period as those on the other side of the street. That marked A consists of a long trapezoidal room, the long sides of which are not equal and the corners are not rectangular. The average length of the room is about 22 feet, and the average breadth is about 10 feet 4 inches. That this spacious apartment was a dwelling-room is shown by the discovery of the remains of a baking-oven made of clay, which was found standing in the southern end of the room before the west wall, and also of a kind of recess in the north-east corner walled off by a stone enclosure, which was apparently used as a kind of cupboard. On the west was an adjoining room of small size and rectangular shape.

The house marked B likewise consists of a long trapezoidal room some 20 feet long and about 12 feet 6 inches broad. In the centre of this compartment is a large stone block. It has been suggested that this block formed the support of a wooden post which held up or helped to hold up the roof. The room is certainly exceptionally broad, and this fact seems to render the suggestion probable.

The house marked D in the same plan has undergone a radical reconstruction. The present walls belong to the late Canaanite Period; the room is almost rectangular in shape and measures about 11 by 16 feet. In the earlier period the room was of smaller dimensions, and the present outer wall on the south-west makes an acute angle with the original south-west wall, and has thereby increased the breadth of the room by about 3 feet 3 inches. Behind this room or house there is an irregular space enclosed by walls, which may have served as a court to house D or may have

<sup>1</sup> Cf. Sellin-Watzinger, *Jericho*, pp. 36 ff.



belonged to another house or group of houses. •In some ways the most striking contrast that the Israelite houses show to those of the Canaanite Period, is in the depth of the walls. In the earlier period, they are abnormally thick, while in the Israelite Period they are not nearly so substantial. The probable explanation of this is that experience showed that the flat earth roof which they appear to have used, did not require such massive walls for its support.

In Fig. 30 we have a plan of a series of houses at Jericho, assigned to the Israelite Period, the best preserved of which, A, may be briefly described.<sup>1</sup> It will be observed that the long wall of house A is built over one of the flights of steps referred to above; as the wall lies immediately over the steps, and there is no layer of débris between the two, the steps were seemingly in use up to the time of the building of the house, and in view of the rapid accumulation of débris in oriental cities, the house was probably erected a comparatively short time after the completion of the steps.

It consists of two rectangular rooms, a broad main room and a somewhat smaller ante-chamber, and measures about 16 feet 6 inches in depth and 16 feet 10 inches in breadth. In the south-west corner of the main room there is a fireplace, *a*, walled off by field-stones, in which the remains of ashes were found, while in the north-east corner there is an elevation, *b*, enclosed by brickwork, upon which lay some vessels and fragments of pottery. The latter was apparently a kind of kitchen cupboard. Near the fireplace, in a trough-shaped hollow built out of clay, a mortar was found, the inside of which was well worn from use. At about 10 inches beneath the floor of the ante-chamber was an amphora containing a body of an infant, together

<sup>1</sup> Cf. Sellin-Watzinger, *Jericho*, pp. 63, 64 ff.

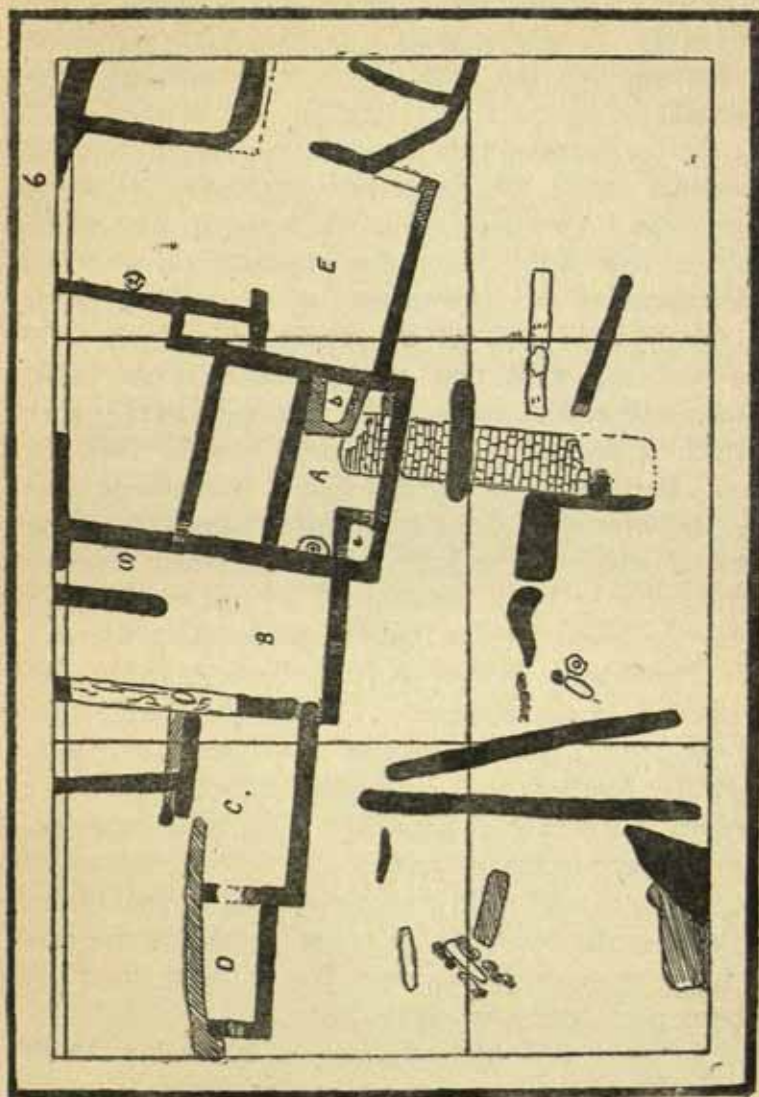


FIG. 30 (see Sellin-Watzinger, *Jericho*, Tafel III).



with some vessels which presumably at one time contained food and drink for the departed one. It is impossible to say definitely where the entrance of the house was. It was probably in the north side, but unfortunately only the base of the north wall has been preserved.

At the north-east corner of the house there is a small rectangular annex, the object and significance of which is uncertain. Two long walls run towards the north, which at first sight have the appearance of being continuations of the eastern wall of this little chamber and the western wall of the house respectively. Of these two long walls, that on the west is thicker than the west wall of the house, under the north-west corner of which it passes. It is consequently older than the house. Both walls in their progress northwards pass under the remains of other buildings of later date. The bricks of which these walls are constructed measure about 21 by 15 by 5 inches, and are consequently of roughly the same size as those found in the outer city wall. These walls indeed probably belong to about the same period as the rampart. The three houses to the west (B, C, D) likewise consist of rectangular rooms, though the northern wall completing the oblong is only preserved in the case of house C. The latter measures about 18 feet 3 inches by 10 feet.

The western wall of B is continued northwards in the same way as the two walls in house A, but its progress has been interrupted by later Jewish walls, and its northern part destroyed altogether.

To the east of A and adjoining it, is another house (E) which resembles those already described. It measures about 17 feet by 12 feet 4 inches. The walls of these houses are made of brick on a foundation consisting of two courses of roughly hewn field



stones of various sizes. The lower of these two courses of field stones projects somewhat beyond the upper course. The bricks used in the wall above are rectangular in shape but also vary greatly in size, and it is clear that they are not made to any standard measurements. Sometimes they are abnormally large—one specimen, for example, was found to measure as much as 16 inches in both directions.<sup>1</sup> The walls vary between about 14 and 18 inches in thickness, that is to say, they are only about half the thickness of the earlier houses.

A plan of a good example of a late Fourth Semitic

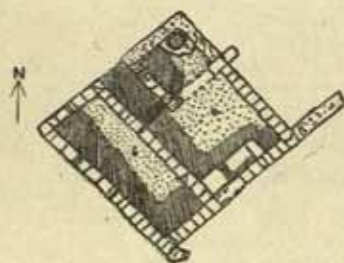


FIG. 31 (see Sellin-Watzinger, *Jericho*, Fig. 45).

house is shown in Fig. 31.<sup>2</sup> The entrance, which is on the north-west side, consists of a small hall about 4 feet wide; it slopes down into the interior of the house. There was nothing to indicate how the entrance was closed. This entrance passage leads with a step down into a more or less square room. On the south-east side of this room—the side, that is to say, opposite the entrance passage—is a bench made of loam about 9 feet 6 inches long and about 3 feet wide. The floor consists of earth and shows no trace of loaming like the other rooms of the house, and was therefore very possibly an open courtyard. A small square room which lies adjacent

<sup>1</sup> Cf. Sellin-Watzinger, *Jericho*, p. 62.

<sup>2</sup> Cf. *ib.* p. 73.

to the passage opens into the north-west side of this courtyard. A large clay water-barrel was found in the north-west corner of this room. It has two clumsily executed handles. There was, further, a large amount of pottery including cooking vessels, jars of various shapes, plates, flat cups, and also pedestalled cups, as well as fragments of big wine amphoræ. There were also clay weights, lamps, and a handle made of stag's horn. As there is no hearth and no trace of fire or ashes, this room was probably not used as a kitchen but rather served as a kind of a store-room. No doubt the cooking was performed on an open fire kindled in the courtyard. The discovery of two mill-stones made of red sandstone prove that flour was ground within the house, while balls of red ochre showed that vessels were painted and polished at home. The living-room lies on the south side and occupies the whole depth of the house. The loam-floor of this room is considerably higher than the floor of the courtyard, and is even higher than the threshold of the entrance, and no doubt this is due to various renovations.

North-east of the courtyard there was another room,<sup>1</sup> the entrance of which was situated in the wall of the courtyard close to the store-room.<sup>2</sup> Parts of the north-western and south-eastern walls were preserved, and also a part of the north wall. The south-eastern wall is the continuation of the back wall of the courtyard. Wine-jars and various other vessels were found in this room.

The plan of one of the best preserved houses of the Hellenistic Period<sup>3</sup> is given in Fig. 32. The entrance, A, is on the east, and leads into what was probably an

<sup>1</sup> This does not appear in the plan in Fig. 31 after Langenegger's plan made in 1908, as it was only excavated in 1909.

<sup>2</sup> See Sellin-Watzinger, *Jericho*, Plate 17.

<sup>3</sup> See Macalister, *Geser*, i, p. 173, Fig. 61.



open courtyard. On the south side of this court is a doorway which gives access to the antechamber of a building which was evidently independent of the main dwelling. The doorway in the west side of this antechamber admits to a room in the floor of which there is a cylindrical pit cemented, which has a diameter of 3 feet 7 inches and a depth of 6 feet 11 inches. This was possibly a receptacle for storing grain. The doorway on the other side leads into a stepped reservoir.

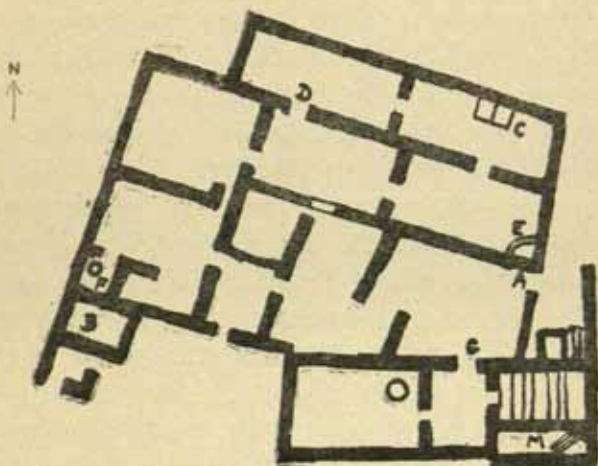


FIG. 32 (see Macalister, *Gezer*, i, Fig. 61).

The water from the roof fell into the small square receptacle north of the reservoir, through a narrow hole in its corner. The sediment having duly collected here, the water was allowed to pass through a hole into the reservoir. If the cistern were too full, the small opening could be closed by a slab of stone and the water would then continue its course along a conduit east of the reservoir and finally be collected in the additional reservoir M. The cistern itself, which is built of square blocks and cemented,



measures 13 feet 2 inches by 8 feet 9 inches and is 7 feet  $3\frac{1}{2}$  inches deep below the bottom of the uppermost step. The steps number six, and have a rise varying from 9 to 12 inches, with the exception of the lowest which is 2 feet high, and a head of 1 foot 3 inches to 2 feet 7 inches, leaving 3 feet 3 inches clear of steps at the lower end. The steps are arranged in threes, one broad and two narrow. The main building is entered from the courtyard through an opening between the ends of two overlapping walls, which admits to a second court, whence doorways lead into the house rooms, some twelve in number. The latter communicate by doorways, all of which, with one exception, B, are preserved. The walls of the rooms were evidently at one time plastered, for a small fragment of plaster, adorned with green and red stripes, was found loose in one of the chambers. At C there are two masonry steps, which Professor Macalister suggests may be the bottom of a staircase leading to the roof or to an upper story. The circular quadrant E consisted of a row of stones set on edge, and may well have been a hearth.

Granaries are common at all periods. They generally consist either of a circular-built structure, which probably had a dome roof with a hole in its apex, or a circular pit dug in the earth. The granaries vary greatly in size; the larger ones no doubt were used for public purposes, the smaller ones being attached to individual houses. In many cases grain still remained in the granaries.

A few masonry reservoirs of the Hellenistic Period have come to light, one of which has been described above (cf. p. 33). They are almost rectangular in shape, and are built of well-cut and carefully coursed stones. They are lined with cement, and a flight of

steps at the side or end leads downwards to the bottom of the reservoir.<sup>1</sup>

Perhaps the most striking reservoir is that associated with the Maccabæan castle at Gezer.<sup>2</sup> The entire depth of the reservoir is 59 feet, the cross-dimensions of the upper part being 57 by 46 feet; half-way down, a second pool was deepened, measuring 27 feet by 24 feet 6 inches at the top but tapering towards the bottom. The sides of the reservoir are lined with two coats of cement, each about  $\frac{3}{8}$  inch in thickness. Descent to the bottom of the reservoir was effected by flights of steps, mostly rock-cut, but partly (in the upper steps) of masonry.

It is estimated that the reservoir could hold some 600,000 gallons, but no evidence has been forthcoming to show how it was filled.

As already observed (p. 26), the adoption of a particular style of architecture can seldom be taken, in the absence of other evidence, as an absolute criterion of the date of any particular building in Palestine. At no period was one special mode of structure used exclusively enough to render it characteristic of a particular era. In the same way the structure of some earlier buildings is vastly superior to that of others of later date, while on the other hand the reverse is frequently the case. Then again, the architecture of a building generally depended largely upon the natural resources of the locality in which it was erected. Accordingly, with certain exceptions, the subject must be treated as a whole, and cannot conveniently be divided up into periods in the same way as pottery, for example.

We have seen that both masonry and brickwork were used from very early times. Generally the foundation

<sup>1</sup> Cf. Macalister, *Gezer*, pp. 273-7.

<sup>2</sup> Cf. *ib.* i, p. 266 f.



of a building was made of stone, the actual walls being made of either brick or stone. Sometimes the wall was made partly of brickwork and partly of masonry. Normally, the stonework formed the lower and the brickwork the upper part. Sometimes, however, masonry is found resting on brickwork, the latter being used as a sub-structure for the stonework. Brickwork was also sometimes used for the purpose of filling in the space between corners and pillars made of stone.<sup>1</sup>

The foundation and substructure of walls are often of the most complex character, and comprise easily distinguishable layers or strata of earth, débris, concrete, and rubble stones, while at Megiddo regularly laid joists and planks of wood were also used,<sup>2</sup> and at Lachish thin layers of fine sand were laid at the bottom of the foundations of buildings assigned to the fourteenth or thirteenth century B.C., and also of later buildings belonging to the tenth century.<sup>3</sup> As a rule the foundations of private houses are comparatively simple, and are not carried down very deep. New walls are often constructed on the top of the ruined walls of earlier buildings, which thus form part of their foundation. There are numerous examples of this practice, both in the case of ramparts and important buildings, as well as in the case of private houses.

Both the blocks of stone used in the structure of the walls, as well as the bricks, vary greatly in size. The masonry also varies greatly in quality. In some cases they are carefully hammer-dressed and well laid, but generally the stones are of irregular shape and are at the best very roughly coursed, the gaps between them

<sup>1</sup> Cf. Steuernagel and Schumacher, *Tell el-Mutesellim*, p. 116, and Macalister, *Gezer*, i, p. 179.

<sup>2</sup> Cf. *Mitteil. und Nachricht. des Deutsch. Pal.-Ver.*, 1904, p. 43.

<sup>3</sup> Cf. Bliss, *A Mound of Many Cities*, pp. 71 ff., 77, 92, 125.



being filled up with smaller stones, chips, and mud. Ornamental stone-dressing is rare. Mud mortar is usual. The stones and bricks are normally set with their long faces parallel to the direction of the wall, but sometimes they are at right angles thereto, one of their long ends being the only part visible in the outer face of the wall. The bricks are, as a rule, crude or sun-dried, chopped straw being not infrequently used in their manufacture.

As one would of course expect, ramparts, fortresses, palaces, and public buildings are made more substantially and more compactly than private houses. The floors of the rooms were usually the bare surface of the earth, but sometimes they consisted of beaten mud mixed with lime-cream, while occasionally a regular pavement of cobble stones or of small stones and lime chippings was used.<sup>1</sup> Mosaic floors were not introduced into Palestine before the Roman Period.

The walls of houses were in the latest periods, and probably also in the earlier, covered with painted stucco. As already indicated, doorways are conspicuous by their absence, but this is due to the fact that the thresholds were raised some inches above the surface of the ground, and walls are generally ruined to below their level. They consisted of an opening in the wall, the vertical masonry on either side of the opening forming the jambs of the door. The doors themselves rested on projecting horns which revolved in stone sockets, of which a large number have come to light.

There is, needless to say, practically no evidence of the nature and size of the windows, but they were doubtless similar to the doorways, only smaller. The peculiar terra-cotta object<sup>2</sup> shown in Fig. 33 may perhaps have

<sup>1</sup> Cf. Macalister, *Geser*, i, p. 182.

<sup>2</sup> Cf. Sellin, *Tell Ta'annek*, p. 29 and Fig. 24; Vincent, *Canaan*, p. 66.

once been fixed in the roof or the upper part of the wall of a building, and have thus been the means of conveying both light and air to the room within. It is about 1 foot 1 inch long, with a diameter of just under 1 foot at the extremities, and of about 8 inches in the centre.

Nothing is certainly known in regard to the manner in which the door-frame was secured. The door was fastened by means of a bolt, as the holes drilled in the ends of walls show sufficiently clearly. Iron keys make their appearance in the Hellenistic Period [cf. p. 210, Fig. 58 (24)-(27)].

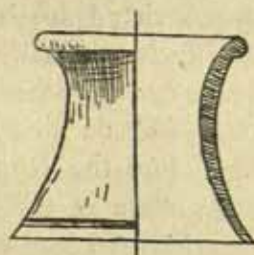


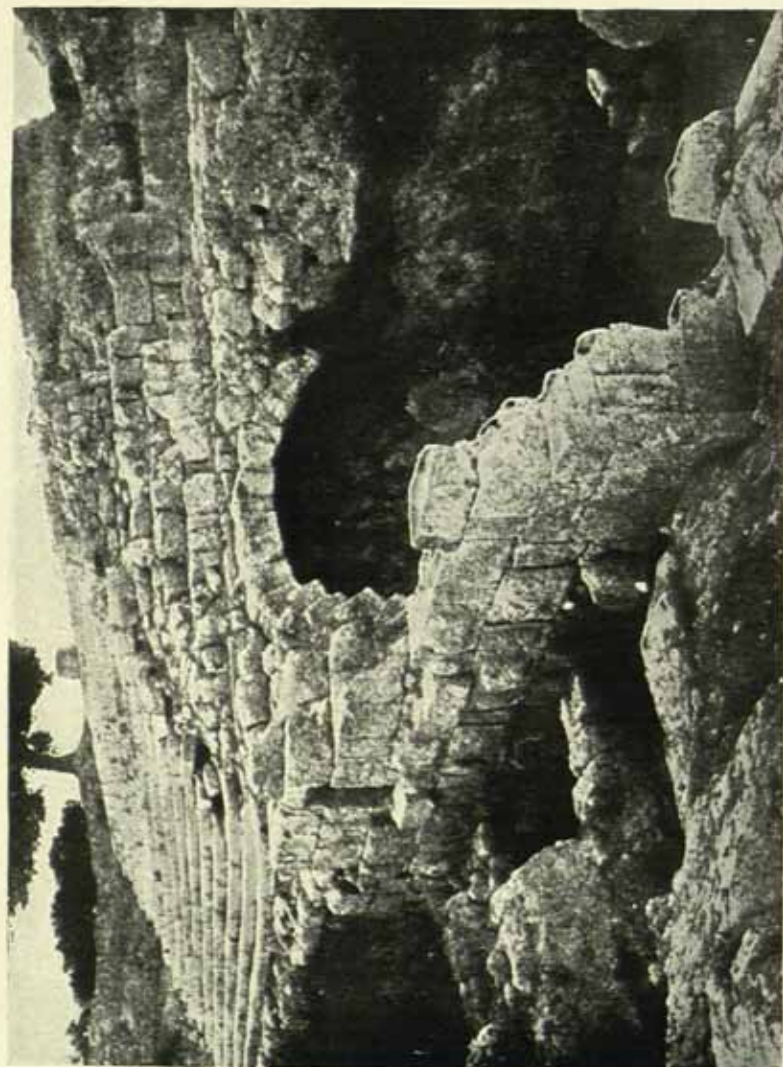
FIG. 33 (after Vincent, *Canaan*, Fig. 37).

The roofs probably consisted of mud supported by wooden rafters. Examples of the use of wood as a building material have already been given, but mention may here be made of a house at Gezer in which a roof, or the remains of a roof of the character indicated, was actually discovered.<sup>1</sup> The house to which it belonged had suffered from fire, but the charred rafters of the roof were found embedded in the earth. These rafters were oval in section, measuring 6 by 4½ inches, and were laid 2 feet 7 inches apart centre to centre. The earliest arch or vault known in Palestine is that in the water-passage at Gezer. But this rock-cut arch

<sup>1</sup> Cf. Macalister, *Gezer*, i, p. 190.



PLATE XV



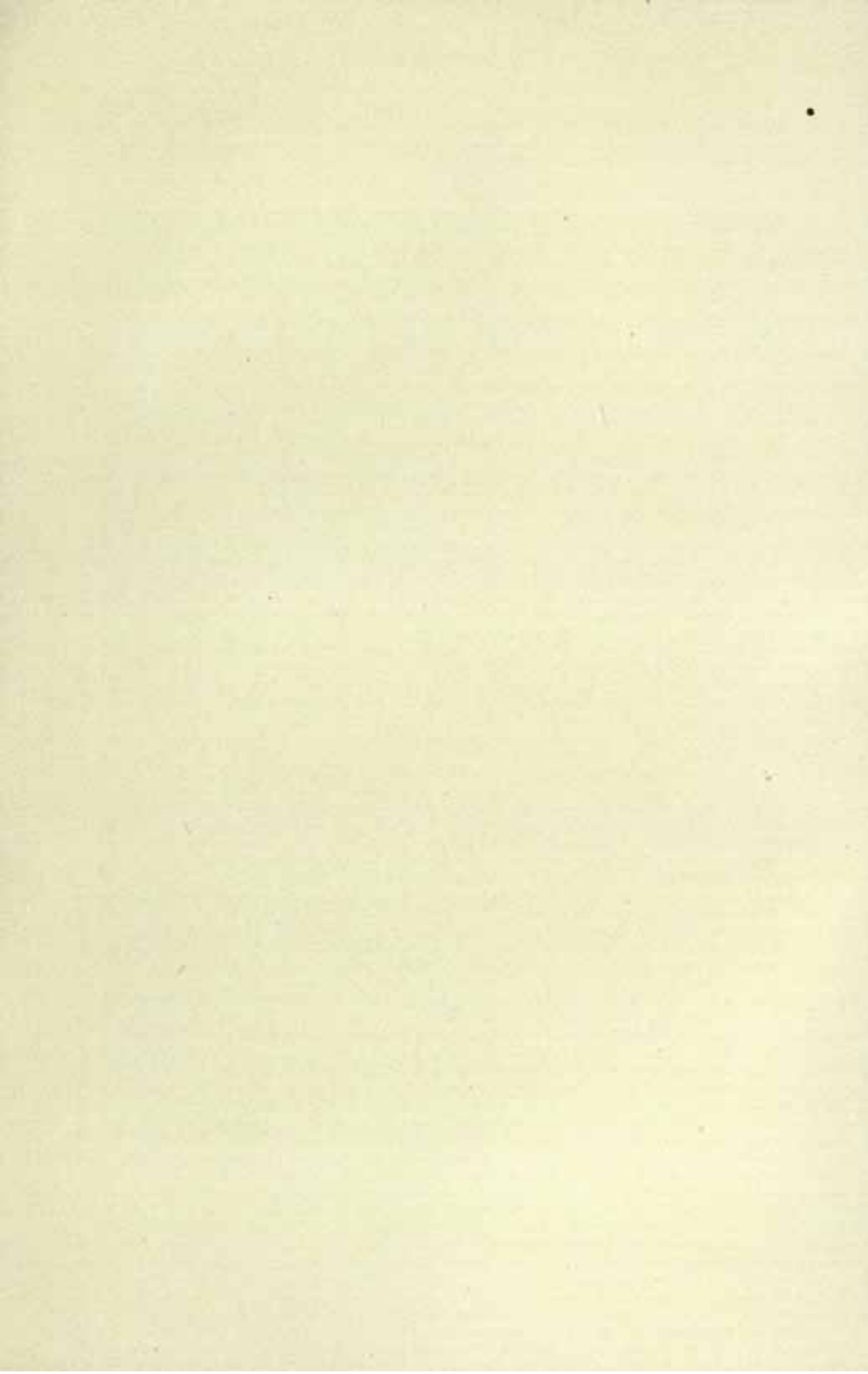
(Latest Light on Bible Lands, Fig. 95.)

(By permission, from the "Harvard Theological Review," vol. III, Plate 13.)

VAULTED CHAMBER.

To face p. 198.





can hardly be taken into consideration in a treatment of architecture. Vaulted or dome roofs were however not unknown, as appears from the vaulted chamber found at the southern extremity of the fortress at Megiddo,<sup>1</sup> and in close proximity to the temple (cf. Fig. 34). The knowledge of the principle of the arch is similarly attested by a large chamber discovered at Samaria<sup>2</sup> (cf. Plates XV, XVI). This chamber measures 40 by 20 feet. The walls, which

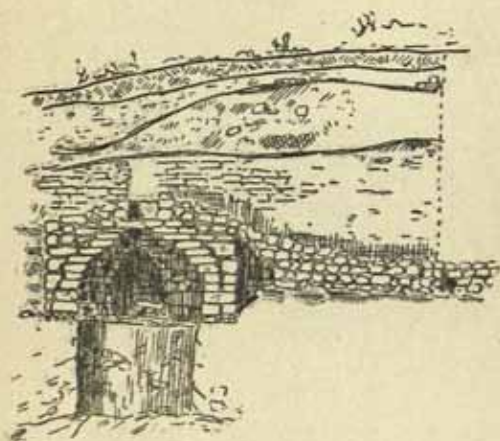


FIG. 34 (see Tell el-Mutesellim, Plate XX).

are very massive, were evidently heavily coated with plaster, and traces of colour were found thereon. The roof consisted in arch, of which a part still remains in position. These, however, are only exceptional instances, and so far as can be gathered the arch did not come into general use until the Hellenistic Period.

<sup>1</sup> Cf. Schumacher, *Mitteil. und Nachricht. des Deutsch. Pal.-Ver.*, 1906, Fig. 5; Steuernagel and Schumacher, *Tell el-Mutesellim*, Plate XX.

<sup>2</sup> Cf. *The Harvard Theological Review*, 1909, p. 110, and the present writer's *Latest Light on Bible Lands* (ed. 2), pp. 249, 250.

Ordinarily in the case of rooms, the dimensions of which were too large to admit of its being spanned by a single length of roofing timber, two lengths were apparently used, the ends of which met in the middle, and were supported on a plate resting on columns, probably made of wood. The idea of a pillar or column had already suggested itself to the cave-dwellers, who sometimes left part of the rock in the middle of the chamber which they were preparing unexcavated, the result being a natural rock pillar.

Staircases or stairways are of rare occurrence, and in all probability the vast majority of buildings only had one story. The most noteworthy stairways are the one in the famous water-passage at Gezer (cf. p. 53 f), the series of staircases at Jericho (cf. p. 97 f), and a remarkable stairway at Samaria,<sup>1</sup> sixteen steps of which have been partially uncovered. The blocks of stone composing this stairway are about 1 yard long, and are both well cut and well laid; the stairway was originally 80 feet wide, the shortest step now measuring 57 feet and the longest about 73 feet.

A smaller staircase leading into the vaulted room, excavated at Samaria, is shown in Plate XVI.

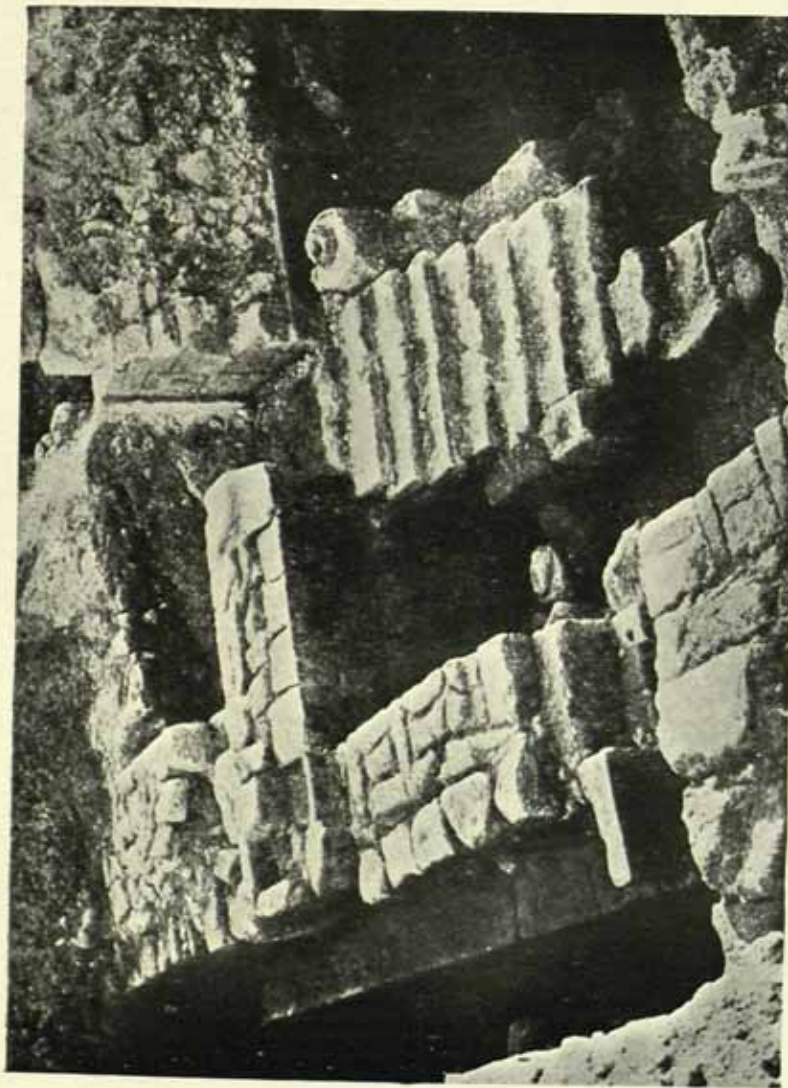
Hearths apparently consisted of enclosures of stones set on edge in the middle or the corners of houses.

Drains or water-conduits<sup>2</sup> consisted as a rule of a double row of small stones on end, and cemented with mud. The floor of the channel was paved with stones or beaten mud, and the more perfect examples were covered with stones laid across. The channels are, as a rule, so much ruined that it is impossible to tell where they came from or whither they led, while for the same

<sup>1</sup> Cf. *The Harvard Theological Review*, 1909, p. 107 f., and *Latest Light on Bible Lands* (ed. 2), p. 249.

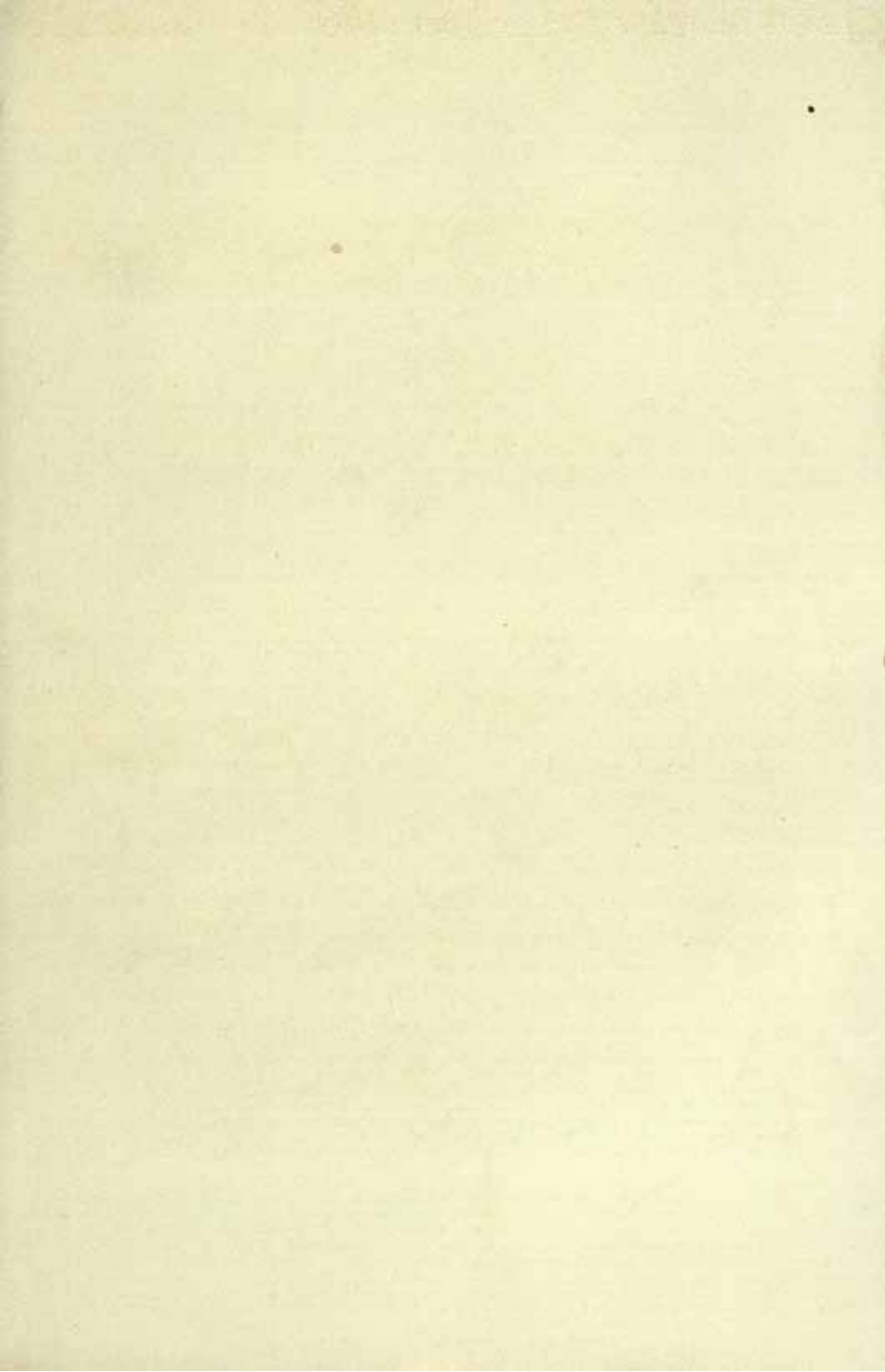
<sup>2</sup> It is generally impossible to distinguish them.





(By permission, from the "Harvard Theological Review," vol. II, Plate 12.)

VAULTED CHAMBER, NORTH-WEST CORNER, LOOKING EAST OF NORTH.



reason one often cannot determine whether they were used for the passage of water or sewage. Vertical built drains were also found, but only occasionally.

Drains again were sometimes made of jars<sup>1</sup> one above the other, with a hole pierced in their bottoms so as to form a pipe (cf. Fig. 35). This type of drain some-

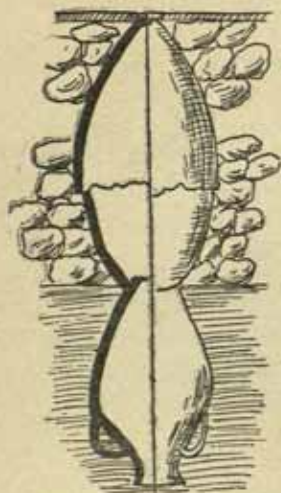


FIG. 35 (see *P. E. F. Q. S.*, 1903, Fig. 1).

what resembles the drains made of terra-cotta rings set one above the other, which were found at Bismâya, Mukeyyer, Nippur, and other Babylonian sites.<sup>2</sup>

<sup>1</sup> Cf. Macalister in *P. E. F. Quarterly Statement*, 1903, Fig. 1; 1904, p. 13; *Gezer*, i, p. 279; Vincent, *Canaan*, pp. 75, 76.

<sup>2</sup> Cf. the present writer's *Mesopotamian Archaeology*, pp. 158-9.



## CHAPTER IV

### FLINT, BONE, IVORY, AND STONE

BOTH periods of the Stone Age are represented in Palestine. As might be expected, the remains of the Palæolithic Period are not so numerous as those of the later Neolithic Period.

Palæolithic flints are all shaped by shivering splinters off, and thus, as it were, chipping them into the required shape, so far as this primitive form of tool-making permitted. Neolithic flints, on the other hand, comprise all flint implements which are finished off by artificial friction, the effect of which was to remove irregularities and impart a certain polish to the flint thus treated.

The commonest Palæolithic implement found in Palestine is the Chellean<sup>1</sup> axe, of which a good example from the neighbourhood of Jerusalem is illustrated in Fig. 36 (1). The points of these axes are sometimes quite sharp, the two large sides being edged off and the rounded base almost always thick. The disc-shaped type of Chellean implement is also found in Palestine [cf. Fig. 36 (2)]. Axes of this description seem, on the whole, to represent a more advanced stage in the industry, inasmuch as the regularity and particular shape of these implements imply a greater skill in the shivering. Other flints of a more specific character (e.g. piercers

<sup>1</sup> I.e. flints of the types found at Chelles, near Paris, in the Valley of the Marne.

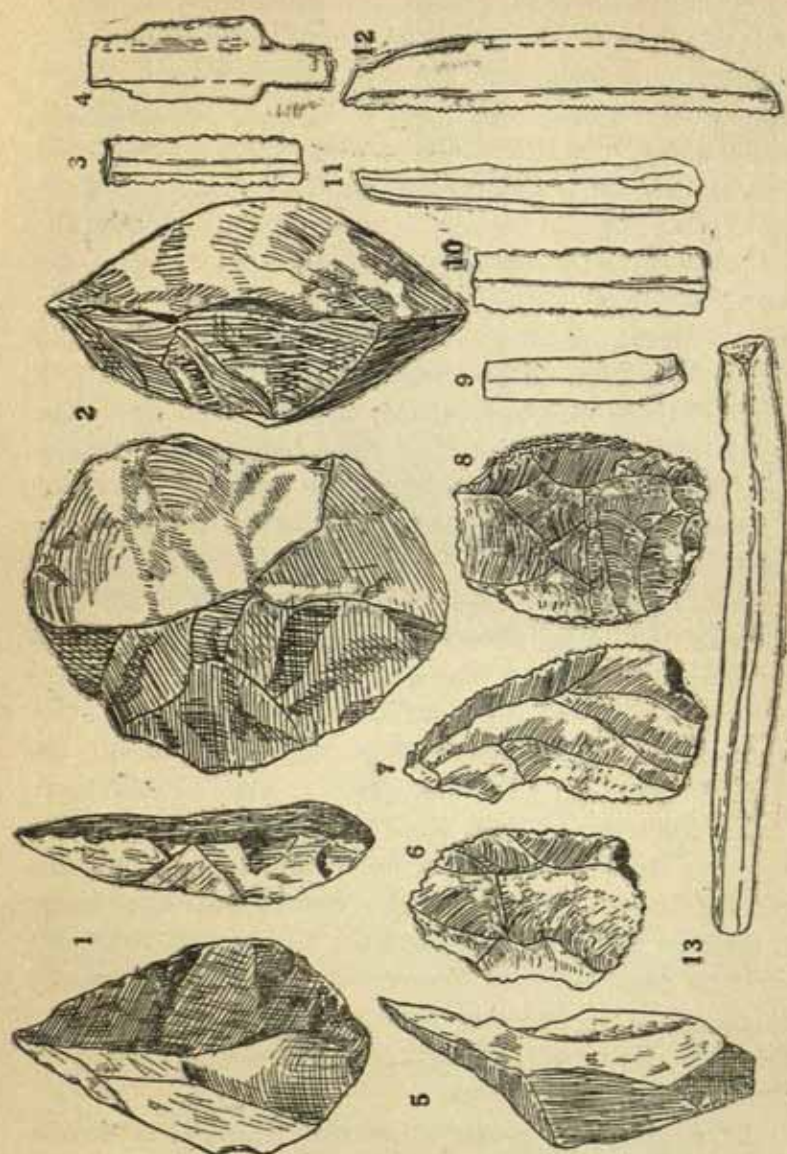


FIG. 36.



for making holes in skins or rude scrapers for removing them) which are also perhaps assignable to the early part of the Palæolithic Age, have been found, but implements of this kind are more characteristic of the Mousterian Period.<sup>1</sup> The smaller flints of the time are chiefly scrapers, the commonest type being triangular in form and having a more or less flat face, and generally a pronounced edge in the centre, which is pared off at the end [cf. Fig. 36 (5)]; other Mousterian scrapers are illustrated in Fig. 36 (6), (7), (8). In the next two periods, the Solutrean and the Magdalenian,<sup>2</sup> a still further advance is observable. Some of the flint implements found in these two last periods of the Palæolithic Age are so skilfully chipped that they compare favourably with Neolithic products, while their shape and contour are more slender and graceful than those of the earlier times.

The implement perhaps most characteristic of this age is a kind of missile, with a point like that of an arrow or a javelin. Some of these weapons of offence were apparently inserted in handles of bone or wood.<sup>3</sup> They are as a rule very thin, oval in section, and sharp on all sides except at the base, which is somewhat thicker at the point where they were inserted into the handle. Scrapers are also very common as heretofore; they are mostly triangular in shape with a flat face, the back being sometimes sharp and sometimes blunt. "Saws" are again of comparatively frequent occurrence, and usually consist of a rectangular blade with a plain flat face, the back being sometimes slightly concave. One of the sides often has teeth.

<sup>1</sup> I.e. the period represented by the flints discovered at Moustier (Dordogne).

<sup>2</sup> The ages characterized by flints found at Solutré, near Mâcon in Bourgogne, and in the caves of Madelaine in Périgord respectively.

<sup>3</sup> Cf. Vincent, *Caanan*, p. 387.



The inauguration of the Neolithic Age is marked by the general appearance of various kinds of domestic animals. As already remarked, the feature that differentiates the flint implements of this age from the Palæolithic flints, is the artificial friction and polishing which they all display. They were finished off and polished by rubbing them on blocks of limestone or sandstone, or special flints chosen for the purpose. The extent to which this process was carried out depended of course upon the nature of the implement and the particular object which it was destined to serve. Some of those which display exceptionally skilful workmanship may well have been votive offerings, or objects of luxury rather than utility. The majority of the Neolithic flints have their prototypes in those of the Palæolithic Age, from which they only differ in the more regular and graceful contours which they exhibit. We now find axes and hammers with handle sockets, knives made for insertion into handles of wood or bone, as well as scythes, saws, awls, chisels, cleavers, and other implements to meet the requirements of this more advanced age.

As elsewhere, there was what may be termed a Calcolithic Age, that is to say, an age in which metal and flint implements were used side by side. The practice of making weapons and tools of flint in fact continued right down to the Fourth Semitic Period, but a distinct deterioration is noticeable in the skill with which the later flint-knappers plied their trade.<sup>1</sup> Indeed, the use of flints in Syria has apparently never died out, and to-day, oval flint "scrapers" are not infrequently used for shearing sheep, and flint razors for shaving the head.<sup>2</sup> But in all cases they are only used once and then discarded. Many flints, however, which to all

<sup>1</sup> Cf. Macalister, *Geser*, ii, p. 122.

<sup>2</sup> Cf. Woolley and Lawrence, *P. E. F. Annual*, 1914-15, pp. 19, 20.

appearance are artificially wrought, have been found in circumstances which preclude any such possibility. Even experts have been deceived by these purely natural products as well as by those which have been fashioned in modern or comparatively modern times, and the form and appearance of a flint implement is not always a reliable criterion by itself.

In the Neolithic Period each man very probably made his own implements, but in the Semitic Periods flint-knapping apparently became a trade practised by certain individuals, and the flint factories of this later date are easily to be identified by the heaps of waste chips lying in their neighbourhood.

The knife is perhaps the commonest type of flint found in Palestine. The majority are either "ribbon knives" or "pointed knives." "Ribbon knives" are long straight knives, with a square base and usually a pointed tip, though the latter is also sometimes square. The edges are usually parallel, though they occasionally taper to a point. The outer side, that is, the side away from the core from which the knife was struck, has two or three facets parallel with the axis of the knife. The edges are either plain or chipped, the chipping varying in delicacy. Sometimes the edge of two-facet knives bifurcates so high up as to practically form an intermediate class between the two-facet and three-facet knives [cf. Fig. 36 (13)], but generally in two-facet knives the ridge in which the two facets meet is parallel with the edges and in the middle of the face [cf. Fig. 36 (9)].

Ribbon knives vary greatly in length, but are usually about 4 inches long. That represented in Fig. 36 (13) measures some  $8\frac{1}{2}$  inches in length, and is an unusually large specimen. They diminish in length as time goes on.

The smaller knives were fixed longitudinally in hafts to which they were secured by some resinous



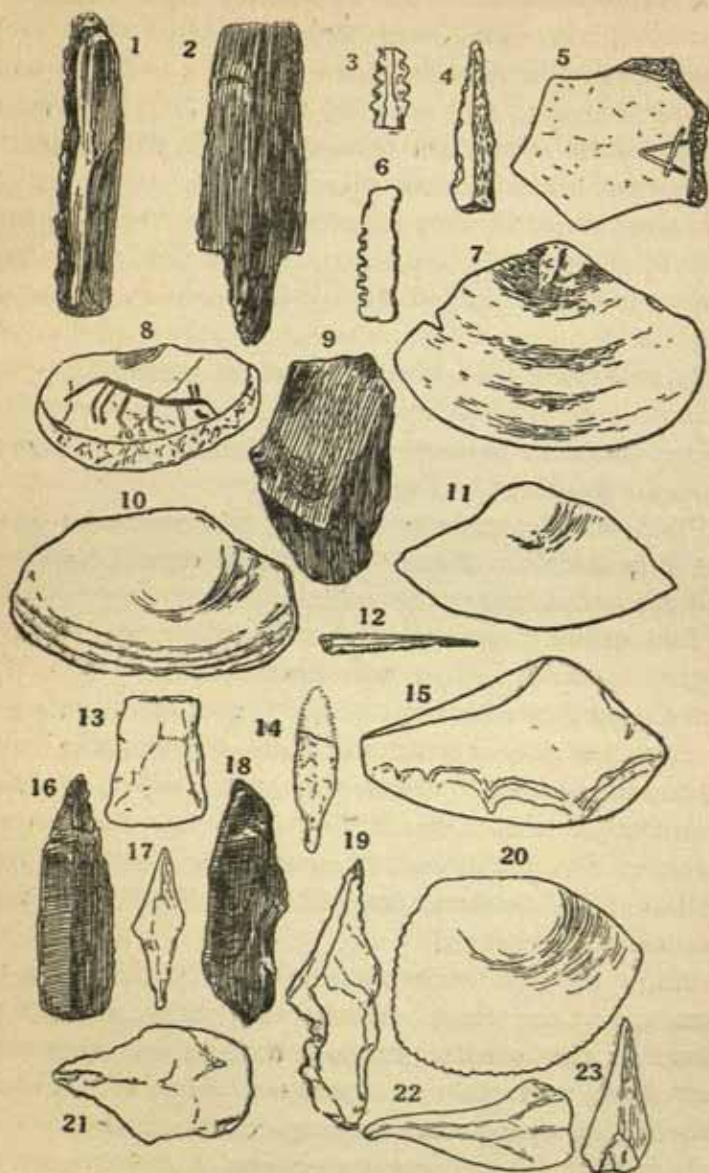


FIG. 37.



substance of which traces occasionally still remain. The larger knives were apparently used without a haft, though in some cases their bases may have been inserted into a handle like a modern knife. Occasionally a knife is shaped tang-wise [cf. Fig. 37 (2)]; this would appear to be a reaction of bronze upon flint forms.<sup>1</sup>

Chipped ribbon knives pass almost imperceptibly into saws, when the denticulations become more regular and more carefully isolated. Sometimes they have teeth on both edges [cf. Fig. 37 (3)], sometimes on one only [cf. Fig. 37 (6)].

Pointed knives are of very common occurrence; they resemble the ribbon knives, but their edges instead of being parallel converge towards the tip. A good example is given in Fig. 37 (4).

Flint sickles are fairly common, the earliest of which are rhomboidal in shape. They were carefully serrated and retouched along the edge.

The ordinary type of scraper is a flat oval in shape, a good example of which is illustrated in Fig. 37 (7). The outer surface of cores was usually selected for scrapers, so that the side opposite the bulb of percussion has a calcareous deposit.<sup>2</sup> Ownership marks were sometimes scratched on this surface; thus in the specimen reproduced in Fig. 37 (5) we see an *aleph* in the old Hebrew alphabet, while in the example illustrated in Fig. 37 (8) an animal is represented.

Many of the scrapers recovered in Palestine are worn away and have entirely lost their oval shape.<sup>3</sup> Some of the smaller scrapers have their edges clean and sharp and show no marks of chipping. This is also due in many cases to long-continued use.

In Fig. 37 (9) we have a specimen of an early scraper

<sup>1</sup> Cf. Geser, ii, p. 124.

<sup>2</sup> Cf. *ib.* ii, p. 125.

<sup>3</sup> Cf. Sellin-Watzinger, *Jericho*, p. 114.

from Jericho. The tool is hewn along the edges into sharp points, and the oval blade tapers somewhat on every side. Similar scrapers were found at Lachish and elsewhere, a selection of which appears in Fig. 37 (10), (11), (15), (20).

Chisels are fairly common in the earlier strata at Gezer, and a good example is seen in Fig. 37 (13).

Borers or awls form another class of primitive implement of which numerous examples have been unearthed. Some good specimens are reproduced in Fig. 37 (12), (16), (19).

Lastly, mention must be made of the numerous spear- and arrow-heads which have come to light. The base of these is thick, and the edges converge to a sharp point, the taper being either regular [cf. Fig. 37 (21), (23)] or crooked [cf. Fig. 37 (22)]. The arrow-heads are similar to the spear-heads, only of course are of smaller size. They were sometimes lozenge-shaped [cf. Fig. 37 (17)], while sometimes they resemble a leaf [cf. Fig. 37 (14)]. These spear- or arrow-heads were not infrequently barbed as in the example given in Fig. 37 (18).

#### BONE.

Flint, however, was not the only material used for tools and implements by the Neolithic population of Palestine before they learned to use metal. The bones or horns of animals were also used for the requirements of the civilization of that bygone day.

One of the most interesting bone objects that have been recovered is the horn adze illustrated in Figure 38 (1) *a, b*. It is a base of a large stag's horn, with a bevelled edge and a rectangular hole for the reception of the handle. There is also a small circular hole which apparently held a rivet, whereby the head of the



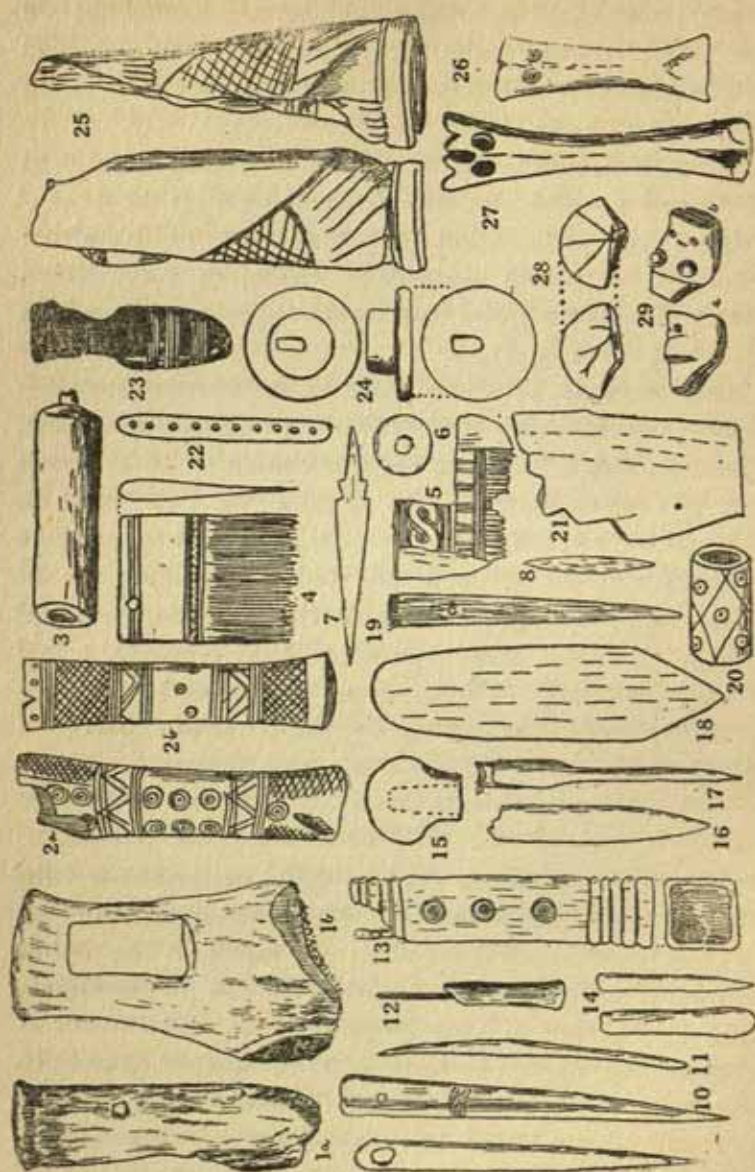


FIG. 38.



adze was held fast and prevented from flying off the handle. This unique implement was found in a cave at Gezer, and it is possibly one of the tools employed in the original excavation of the cave.

The handles of carpenters' tools were again often made of bone, some of which are decorated with geometrical patterns or punch-marks [cf. Fig. 38 (2) *a*, *b*]. A good example of a plain awl-handle made of bone is illustrated in Fig. 38 (3).

As a rule, however, only small implements appear to have been made of bone. Bone needles or prickers are, for example, exceedingly common. The animals or birds whose bones were thus utilized are various, the sheep and the crane been apparently responsible for a large proportion of the implements of this character. They generally consist of flat strips tapering from base to point and, in the case of needles, perforated at the base [cf. Fig. 38 (9), (10)]. Those which are not perforated were probably used for making holes in skins or some other tough material [cf. Fig. (11)]. Sometimes, however, bone pins would appear to have been used for fastening a dress.<sup>1</sup>

These pins or needles were kept in cases likewise made of bone. In Fig. 38 (12) we have an example of one such case with a needle still in it. An ornamented bone case was found in one of the so-called "Philistine" graves at Gezer [cf. Fig. 38 (13)], but it contained a piece of lead instead of bone pins or needles. Sometimes, again, metal pins were provided with bone heads, a specimen of which is illustrated in Figure 38 (15). Spatulæ, again, were sometimes made of bone [cf. Fig. 38 (14)], while bone would appear to have been the normal material used for styli, though ivory was also employed. A representative group of styli are illustrated in Fig. 38

<sup>1</sup> Cf. *Gezer*, ii, p. 87.

(16)–(19). They are usually flat or round slips of one or other of the materials mentioned, with a sharp point at one end and a round or straight butt at the other. The average length is about  $3\frac{1}{2}$  to  $4\frac{1}{2}$  inches. (18) is an example of the commonest form.

In the Hellenistic Period, arrow-heads were occasionally made of bone, as may be seen from the specimens illustrated in Fig. 38 (7), (8). The latter are, however, almost unique.

Buttons were frequently made of bone, while combs<sup>1</sup> made of the same material have also come to light.

The comb illustrated in Fig. 38 (5) was found in an early Fourth Semitic tomb. As a rule the teeth are coarse, the specimen seen in Fig. 38 (4) being unusually fine. Buttons usually consisted of circular discs perforated in the middle, which are evidently too small for spindle whorls [cf. Fig. 38 (6)]. Sometimes, however, they are lozenge-shaped, while in some cases the buttons consist of cylindrical bars.

The larger circular bone discs may have been spindle whorls.<sup>2</sup> In Fig. 38 (28) we have a fragment of a bone disc with a device on both sides, which may possibly have formed part of a game. Some of the flat bone discs brought to light were probably used as inlays, as, for example, that illustrated in Fig. 38 (21) in which the perforation for the attaching pin is observable.

Scarabs and scaraboids were occasionally made of bone, while bone amulets are of frequent occurrence.<sup>3</sup>

The bones of various animals were used for this purpose, the specimen illustrated in Fig. 38 (26) being made from the bone of a goat. A similar bone amulet was found in the crematorium at Gezer [cf.

<sup>1</sup> Cf. *Gezer*, ii, p. 118.

<sup>2</sup> Cf. Sellin-Watzinger, *Jericho*, pp. 154, 155, and *Gezer*, i, p. 136.

<sup>3</sup> Cf. *ib.* p. 121; *Gezer*, i, pp. 110, 285, etc.



Fig. 38 (27)]. Sometimes bone amulets were burnt with the bodies of their owners.<sup>1</sup>

The club-shaped amulets, particularly characteristic of the Fourth Semitic Period, are again often made of bone. These were perforated and worn as pendants.

In Fig. 38 (22) we have a bone plate perforated with holes for the suspension of ten strings of beads. It was apparently a common practice in the Third Semitic Period to wear several strings of beads on the breast. Bone beads also occur, the large cylindrical bead(?), with grooves and punch-marks, here represented [Fig. 38 (20)] being perhaps one of the most interesting.

Bone figures are very uncommon, the remarkable head of an animal [Fig. 38 (29)], and the human figure also shown here [Fig. 38 (25)], being quite exceptional. The latter is apparently Assyrian in style.<sup>2</sup> Sometimes vessels were made of bone, and a fragment of one such vessel discovered in the Pre-Israelite strata at Jericho<sup>3</sup> is represented in Fig. 38 (23). It is decorated with incised lines and punch-marks.

Stoppers of vessels were again sometimes made of bone, a good example of which is seen in Fig. 38 (24). Whether or not particular bones which are unwrought and are not accompanied by other bones were intended as amulets, or whether they are the chance remains of sacrifices or sacrificial feasts, cannot of course always be determined with certainty. But such bone relics as the hippopotamus' tooth found at Gezer<sup>4</sup> can hardly be explained on the latter hypothesis.

#### IVORY.

The commonest objects in ivory found in Palestine are inlays for the decoration of sword-hilts, pieces of

<sup>1</sup> Cf. *Gezer*, i, pp. 285, 286.

<sup>2</sup> Cf. *ib.* ii, p. 343.

<sup>3</sup> Cf. Sellin-Watzinger, *Jericho*, p. 121.

<sup>4</sup> Cf. *Gezer*, i, p. 267.



furniture, boxes, etc. These frequently consisted<sup>1</sup> of thin flat discs<sup>1</sup> or strips<sup>2</sup> of ivory. Punched circles with dots at their centres are one of the commonest decorations [cf. Fig. 39 (1)], though diagonal lines, parallel or in zigzags, are also very frequent [cf. Fig. 39 (2), (3).] The one represented in Fig. 39 (3) is unusually large, measuring some 5 $\frac{3}{8}$  inches in length. All modes and styles of decoration are used at all periods, and no chronological sequence can therefore be deduced therefrom. Some of the inlays recovered are clearly Egyptian in character [cf. Fig. 39 (4)]. These inlays usually have rivet-holes for affixing them to the object for which they were designed, the pins used being apparently made of either wood or bone.

Among the other ivory objects of probably Egyptian character, the perfume-boxes, of which a good example appears in Fig. 39 (7), deserve special mention. This boat-shaped box has a hole on the under-side to stand on a pedestal with a tenon to secure it, while the lid pivots in a hole at the end of the depression. Numerous ivory scarabs and scaraboids have been brought to light, one of the most interesting being that reproduced in Fig. 39 (10). The field of the scarab is occupied with a divinity and a worshipper, above which is a winged scarabæus. It was found in the cistern near the High Place at Gezer. The heads of two ivory statuettes, likewise of Egyptian origin, are also noteworthy. That reproduced in Fig. 39 (9) is of particular interest. It is 3 $\frac{1}{2}$  inches high, and was affixed to the statue by means of a rivet passed through the neck, the hole of which appears very conspicuously in the illustration. The top and back of the head, which were evidently meant to be concealed, were left rough. The eyes are hollow, and probably were once filled with inlays. In Fig. 39 (11)

<sup>1</sup> Cf. *Gezer*, i, p. 90.

<sup>2</sup> Cf. *ib.* i, p. 122.

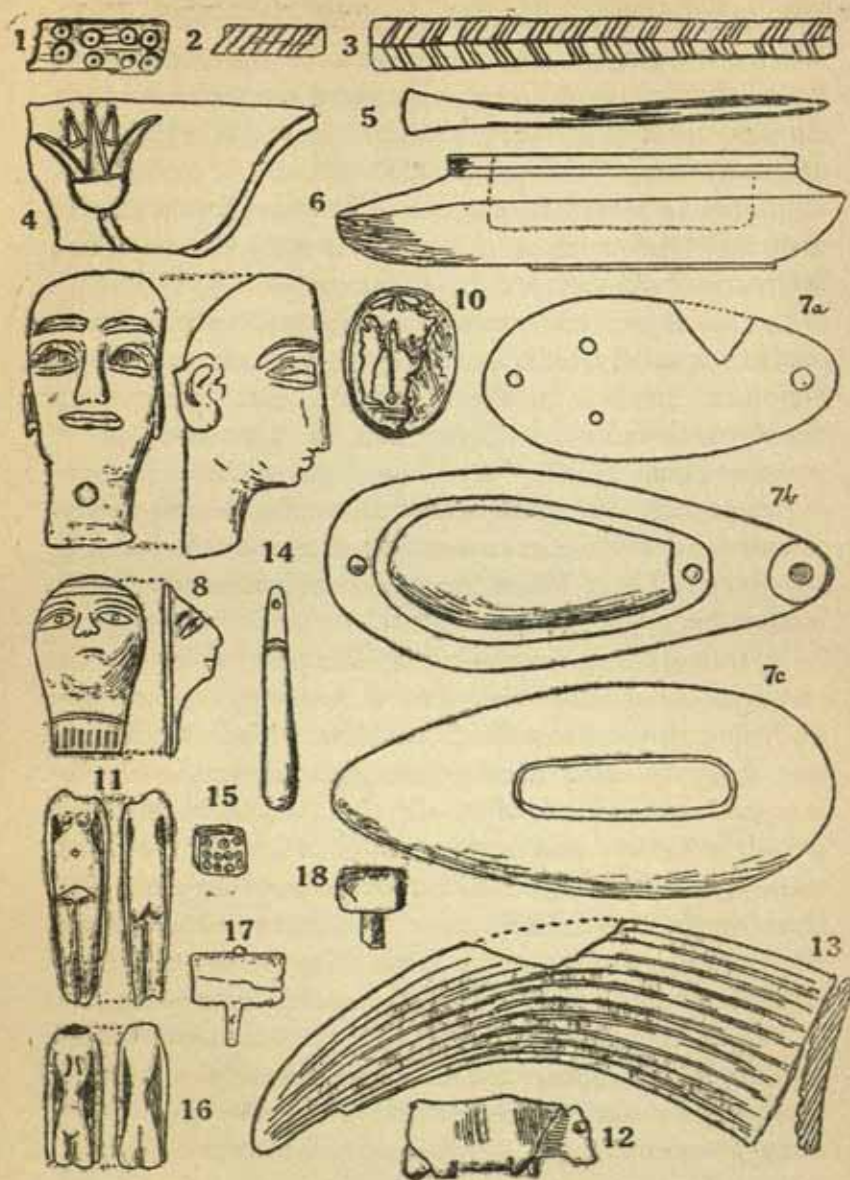


FIG. 39.



and (16), we have two ivories carved in imitation<sup>1</sup> of Hathor-Ashtoreth plaques.

Pins, buttons, and ornamental pin-heads were frequently made of ivory, and resemble those of bone already described. In the same way styli were often made of ivory [cf. Fig. 39 (5)].

Many ivory amulets have been recovered; they appear to have been especially common about 600 B.C. They are usually club-shaped in character [cf. Fig. 39 (14)]. Some of these club amulets in ivory are decorated with incised parallel bands encircling the upper part, or of "crossed hatched incisions between two such bands above and below."<sup>2</sup> Specimens of ivory amulets of a very much earlier date have, however, come to light, as is shown by the two little mallet-shaped objects found in a Pre-Israelite tomb at Bethshemesh [cf. Fig. 39 (17), (18)]. They resemble the ordinary wooden mallet used for fixing tent-pins.<sup>3</sup>

An interesting example of the use of ivory for personal ornaments is a pectoral bearing the cartouche of Menephthah discovered at Gezer.<sup>3</sup> On the obverse the king is seen adoring the god Thoth, while the reverse is occupied with a group of radiating lines, which were no doubt struck with a compass. Beads were sometimes made of ivory, as may be seen from that reproduced in Fig. 39 (15). This bead is flat and square; it has two perforations through the sides, and it is decorated on the broad face with punch-marks.

Common articles of toilet were also occasionally made of ivory, thus combs<sup>4</sup> made of this material have been recovered, as well as ebony combs and the bone combs already notified.

<sup>1</sup> Cf. *P. E. F. Annual*, 1912-13, pp. 62, 63.

<sup>2</sup> Cf. *ib.* p. 62 and Plate XXXA, 13, 15.

<sup>3</sup> Cf. *Gezer*, p. 15.

<sup>4</sup> Cf. *ib.* ii, p. 118.



Figures in ivory are rare, a good example of which is given here [Fig. 39 (12)]. It appears to be a rude representation of a pig.

As one would expect, larger implements or weapons are seldom made of this material, the boomerang illustrated in Fig. 39 (13) being quite exceptional.

Pieces which formed part of a game were sometimes made of ivory, and a number of ivory discs have been recovered, which apparently were used in a game resembling "pitch-and-toss."<sup>1</sup>

#### STONE.

We have already discussed the use of stone as a building material and notified the extent of its use as well as the manifold purposes for which it was employed. Not only was it used for casing and reveting walls, it was also used for the foundations of buildings, for columns or the bases of columns, as well as for doorposts and thresholds; while the discovery of limestone rollers (cf. *Gezer*, i, p. 190, Fig. 78) shows conclusively that roofs—at all events in the Hellenistic Period—were made of mud supported on wooden beams. The example here cited was discovered at Gezer; it measures 1 foot  $7\frac{1}{2}$  inches in length, and is 9 inches broad at the ends. Reference has also been made to the flint implements and weapons used in the Palæolithic, Neolithic, and later periods. We must now briefly consider its use for other purposes.

Different stones were, of course, used for different purposes. Diorite and other hard volcanic stones and also sandstone were used for mortars, pestles, hand-mills, braziers, dishes, and trays. For other purposes, basalt, quartzites, serpentine, and various kinds of marble which admit of a high polish were used. The

<sup>1</sup> Cf. *Gezer*, ii, p. 302.

local limestone served the more ordinary purposes. Jar-stoppers were thus frequently made of limestone, while the rude figures to be shortly described were made of this material. Tablets of limestone again were sometimes used for writing or drawing. Numerous objects in alabaster have been brought to light, most of which apparently came from Egypt. For small objects including weights, seals, beads, and other personal ornaments, carnelian, agate, jasper, chalcedony, and hæmatite, are the commonest stones.

Egypt, Babylonia, Assyria, and the land of the Hittites have bequeathed to us a rich legacy of stone monuments sculptured either in the round or in relief, but the excavations in Palestine have yielded few such monuments. One of the best examples is that represented in Fig. 40 (1). It is the head of a figure wearing the crown of Upper Egypt, and measures just over 4 inches in height. It is made of soft limestone. A number of other stone figures were also recovered from Gezer, but they are all of a more or less primitive character. They are for the most part fashioned of nodules of soft limestone, and the majority came from the Fourth Semitic stratum. Many of these grotesque little figures appear to be archaic idols. Megiddo has yielded the best example of this curious type of figure [cf. Fig. 40 (2)].<sup>1</sup> It was discovered in a stratum representing the period between the twentieth and fifteenth century B.C. Similar stone figures have been recovered from other Palestinian sites,<sup>2</sup> but they are all more or less devoid of artistic merit and call for little comment. The one represented in Fig. 40 (3) was found at Gezer, while that in Fig. 40 (4) was unearthed at Tell eš-Şâfi,<sup>3</sup>

<sup>1</sup> Steuernagel and Schumacher, *Tell el-Mutesellim*, p. 51, Fig. 51.

<sup>2</sup> Cf. Sellin-Watzinger, *Jericho*, p. 120, and Abb. 107.

<sup>3</sup> Cf. Bliss-Macalister, *Excavations in Palestine*, p. 142, Plate 72, 1.



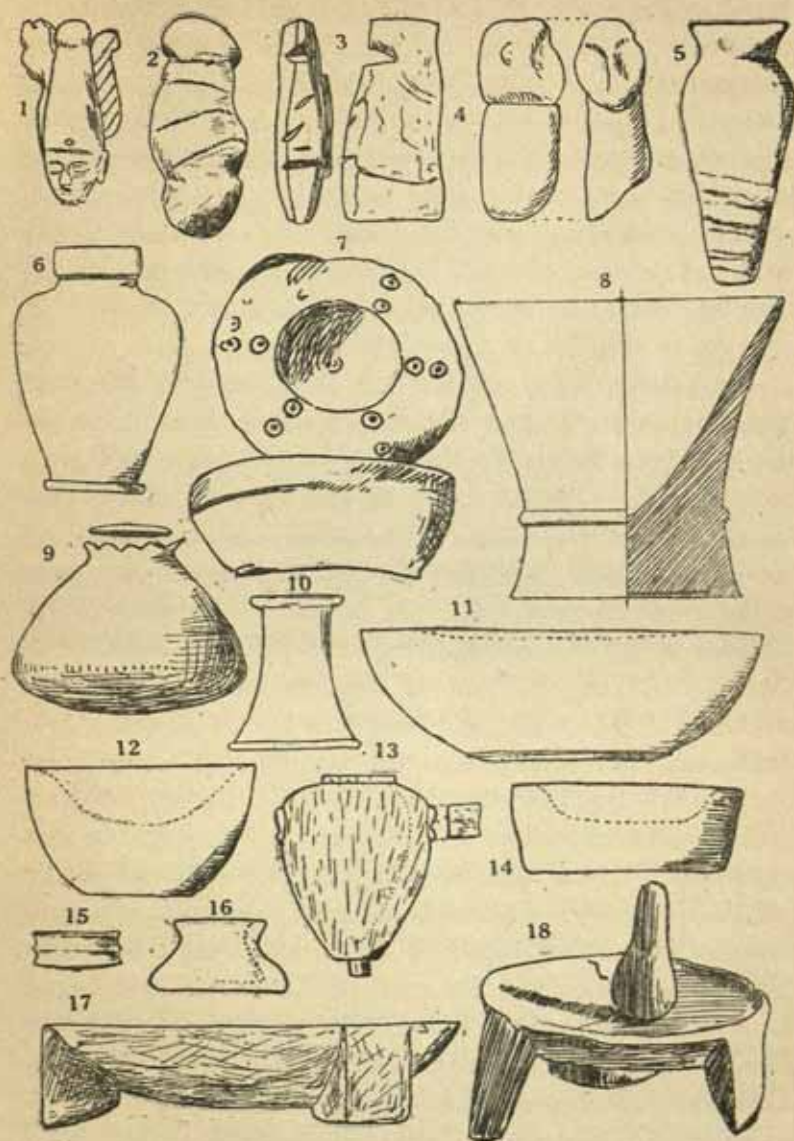


FIG. 40.



It has been suggested that in these crude little idols we have examples of the *terāphîm* referred to in the Old Testament (cf. *Genesis* xxxi, 19, 34, 35; *Judges* xvii, 5, xviii, 14, 17; 1 *Samuel* xv, 23, xix, 13, 16; 2 *Kings* xxiii, 24; *Ezekiel* xxi, 21; *Hosea* iii, 4; *Zechariah* x, 2). It is true that the *taraph* referred to in 1 *Samuel* xix, 13 must have obviously been a large image,<sup>1</sup> but on the other hand the *terāphîm* mentioned in *Genesis* xxxi were clearly small, and accordingly the passage in *Samuel* is no conclusive argument against the teraphim theory in regard to these little images.

A considerable number of small statuettes of the familiar Cypriote type (their date being about 500 B.C.) have been recovered. On some of these red paint was visible. They do not essentially differ from those found elsewhere, and consequently do not call for comment in this connection.

Crudely sculptured animal figures have also come to light. They exhibit the same characteristic artlessness. One of the specimens, for example, consists simply of a block of stone with an indication of a head at one end and a ridge to indicate a tail at the other.<sup>2</sup> Another appears to be a very rude Janiform representation of two animal heads.<sup>3</sup>

Stone vases, bowls, and saucers are on the other hand of comparatively frequent occurrence. They are made of various kinds of stone, e.g. alabaster, limestone, basalt, and diorite.

Most of the alabaster vessels recovered appear to have an Egyptian *provenance*. The commonest type is illustrated in Fig. 40 (5). This type appears in the First Semitic Period, and persists right down to Hellenistic

<sup>1</sup> Cf. Vincent, *Canaan*, p. 154, n. 1; Lagrange, *Juges*, p. 272.

<sup>2</sup> Cf. *Gezer*, ii, p. 22, and Plate CXXV, 25.

<sup>3</sup> Cf. *ib.* Plate CXXIV, 38.

times. The chief characteristics are an inverted conical body, a concave neck, and a narrow flat base.

There are many varieties of this general type. Sometimes, for example, the base is pointed instead of flat,<sup>1</sup> while occasionally there are handles, but the latter feature is very rare. Vases of this description are often beautifully coloured. Another type of alabaster vessel appears in Fig. 40 (6). The chief characteristic which differentiates this from the preceding type is the flat disc base which projects beyond the sides of the vessel.

A third form is globular in shape, has a conical body, and a more or less convex base. The example here shown (9) is especially interesting because it retains its alabaster stopper.

Jar-stoppers and also jar-covers [cf. Fig. 41 (2)], indeed, were not infrequently made of stone.<sup>2</sup>

A few alabaster saucers have been recovered; these were apparently used for grinding paint on, and thus served as palettes.<sup>3</sup> Apart from the pottery, unfortunately very little of the painter's work has survived. This, of course, is mainly due to the combined attack of time and climate. The ordinary palettes consist of small flat stones, on some of which the traces of paint are still visible, the superior saucer palettes referred to being made of alabaster, quartzite, or some other smooth compact stone. These saucers generally have a diameter of about 3 inches, a flat base, and a depression in the upper surface, surrounding which there is as a rule a simple geometrical device [cf. Fig. 40 (7)], either scratched, punched, or traced with a compass. They

<sup>1</sup> Cf. *Gezer*, ii, pp. 339 ff.

<sup>2</sup> Cf. Bliss-Macalister, *Excavations in Palestine*, p. 143; *Gezer*, ii, pp. 338.

<sup>3</sup> Cf. Sellin-Watzinger, *Jericho*, pp. 152, 153; *Gezer*, ii, pp. 272 ff. Plates CCXIII, 1-8, LXXVI, 19.



are not infrequently provided with a long button-handle, surrounding nearly half the object.

Evidence that brushes were used for applying paint was afforded by the discovery of hairs on the edges of painted ornament in pottery.

Alabaster vessels were not always made in one piece. The footed saucers in which the stand [cf. Fig. 40 (10)] is made separate from the saucer which it supports, are the commonest type of these complex vases. Sometimes quite large jars were made of alabaster, and fragments of three such were found at Gezer.<sup>1</sup> Generally speaking, the outer surface of alabaster vases was left plain, but fluting is not unknown.<sup>2</sup>

In Fig. 40 (8), (11), (12) are two good specimens of bowls in limestone, and a cup with sloping sides and a moulded solid foot,<sup>3</sup> while in Fig. 41 (1) we have a little cylindrical box of limestone, the particular interest of which lies in the scene represented thereon.<sup>4</sup> It is  $2\frac{7}{8}$  inches high, 3 inches in diameter at the top, and  $3\frac{1}{8}$  inches in diameter at the bottom. On a part of the vertical face of the box is scratched the drawing of a horse and rider. The curves of the latter's body suggest that the rider is a woman, and Professor Macalister aptly recalls the vase-painting of the Libyan horsewoman from Daphnæ, and adds that this may be "an artistic descendant of some such original."<sup>5</sup> The rider's mouth is open, and the horse is firmly held in by reins which are attached to a rope bound round the nose of the animal in lieu of a bit. Behind the horse and rider is another quadruped with a long curly tail. Unfortunately, only the hind-quarters remain, and it is impossible to determine

<sup>1</sup> Cf. *Gezer* ii, p. 338.

<sup>2</sup> Cf. *ib.* ii, p. 341.

<sup>3</sup> Cf. Bliss-Macalister, *Excavations in Palestine*, p. 143.

<sup>4</sup> Cf. Macalister, *Gezer*, ii, p. 12, Fig. 213.

<sup>5</sup> Cf. Ridgeway, *Origin and Influence of the Thoroughbred Horse*, p. 243.



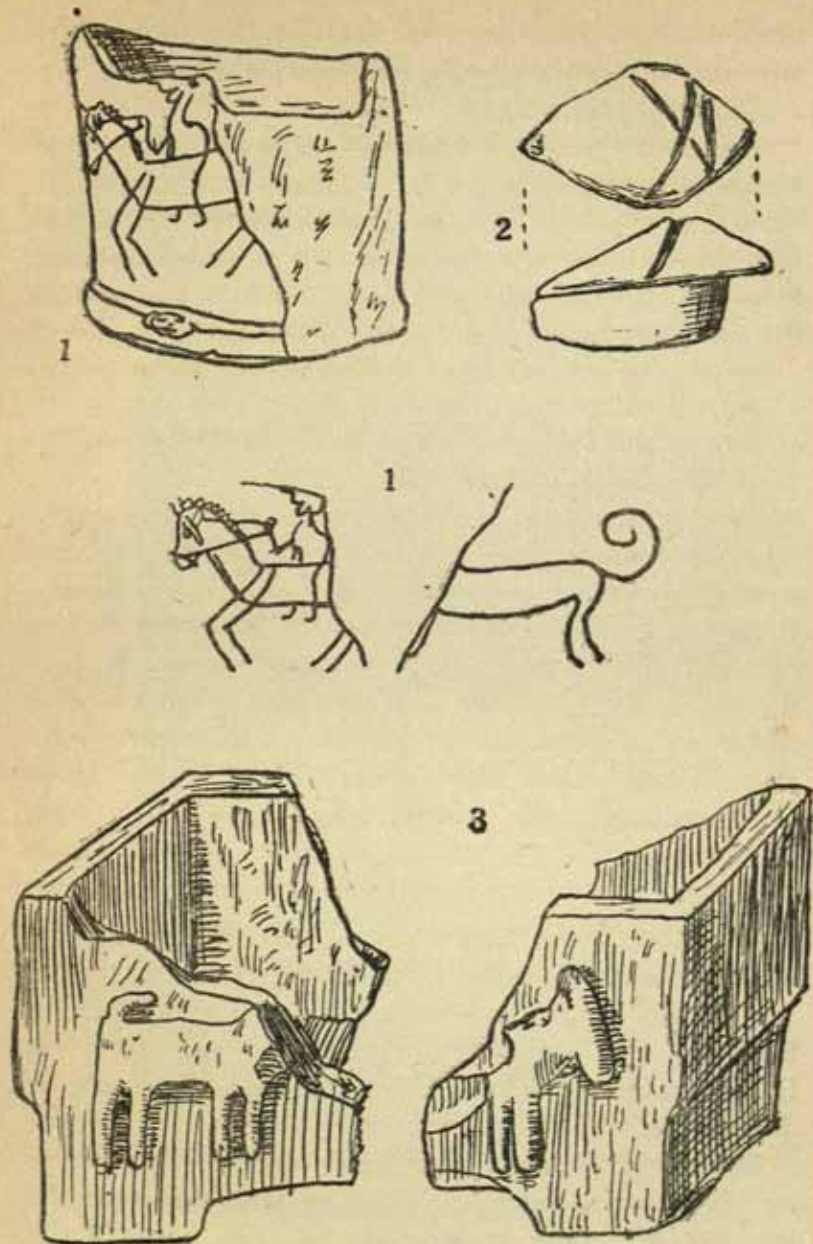


FIG. 41.

with certainty the nature of this animal, though the curly tail and the length of the body in proportion to its height are suggestive of a dog.

The four sides of another decorated stone box<sup>1</sup> which, however, belongs to the Hellenistic Period, is shown in Fig. 42. On the two long sides are a bird with three Greek letters—the end of an inscription, the first part of which has worn away—and a ship, and on the two short sides some unrecognizable pattern.

Bowls, cups, and other vessels were, however, some-

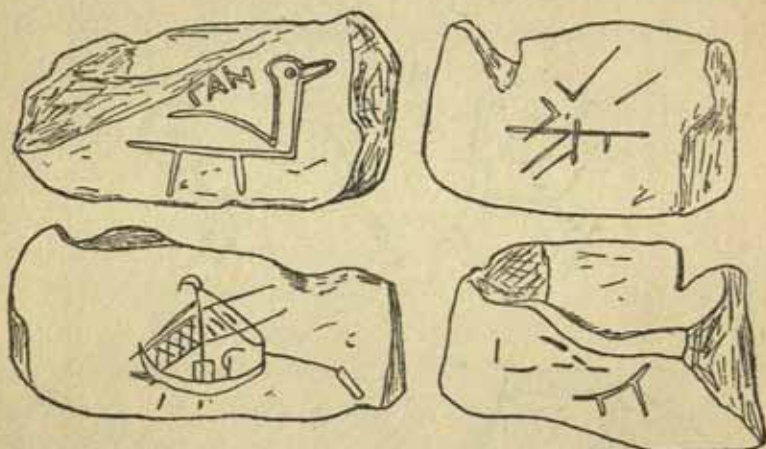


FIG. 42.

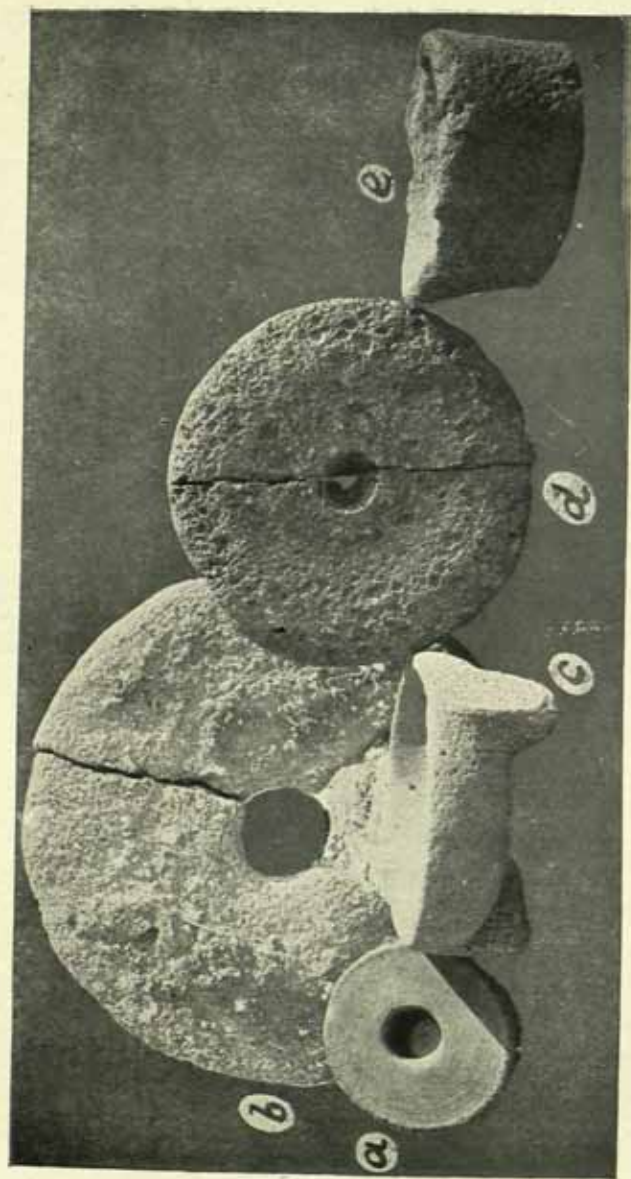
times made of the harder stones; thus in Fig. 40 (13) we see a beautiful oval vase made of grey marble. It has two flat handles and a tenon at the base for fitting into a mortice. The form of the vase is Egyptian, and it was found below the level of the Pre-Israelite temple at Tell eš-Šâfi.

But one of the most remarkable objects in hard stone as yet found is the basalt basin or tank discovered in the *Maššēbā* room at Megiddo [cf. Fig. 41 (3)].<sup>2</sup> It

<sup>1</sup> Cf. Macalister, *Gezer*, i, p. 371.

<sup>2</sup> Cf. Steuernagel and Schumacher, *Tell el-Mutesellim*, p. 127.

PLATE XVII



(By kind permission of the Palestine Exploration Fund.)

VARIOUS TYPES OF MILLSTONES AND MORTARS.

(From *Geniv*, Plg. 229.)

To face p. 184.





rested on four substantial feet. The two long sides are decorated in relief with the figure of an animal. The chisel marks are not perceptible, and it is one of the best specimens of sculptured relief that has been so far recovered in Palestine.

But shallow saucers and mortars, of which one in granite appears in Fig. 40 (14), are the commonest types of objects made of the harder stones. A basalt mortar discovered at Jericho<sup>1</sup> is supported on three short stout feet. Similar saucers were found at Megiddo,<sup>2</sup> Gezer, and elsewhere. An example from Gezer is reproduced in Fig. 40 (17). This specimen is of considerable size, having a diameter of 12½ inches. Another similar three-legged stone dish was found on the same site. The latter was of particular interest owing to the fact that a hemispherical pebble, obviously the associated grinder, was found with it. The smaller dishes were very possibly paint-grinders, the paint being placed in the mortar and ground by a stone pounder or pestle.<sup>3</sup> These implements are found in the Third and Fourth Semitic Periods.

Circular stone dishes or saucers were sometimes used for culinary operations, as is shown by the fact that they are blackened with smoke. Others, again, were used for grinding grain. Thus the mortar and pestle illustrated in Fig. 40 (18) were found in a granary. Like the above-mentioned saucer from Jericho, it stands on three feet. The material generally used for these dishes is a dark granitic stone, and they are always very carefully finished. They were occasionally decorated; a good example of such decoration is afforded by the ornamented leg of a stone mortar found at Gezer [cf. Fig. 43 (1)].

<sup>1</sup> Cf. Sellin-Watzinger, *Jericho*, p. 153.

<sup>2</sup> Cf. Steuernagel and Schumacher, *Tell el-Mutesellim*, p. 65, Fig. 83.

<sup>3</sup> Cf. *Gezer*, ii, pp. 36, 37.

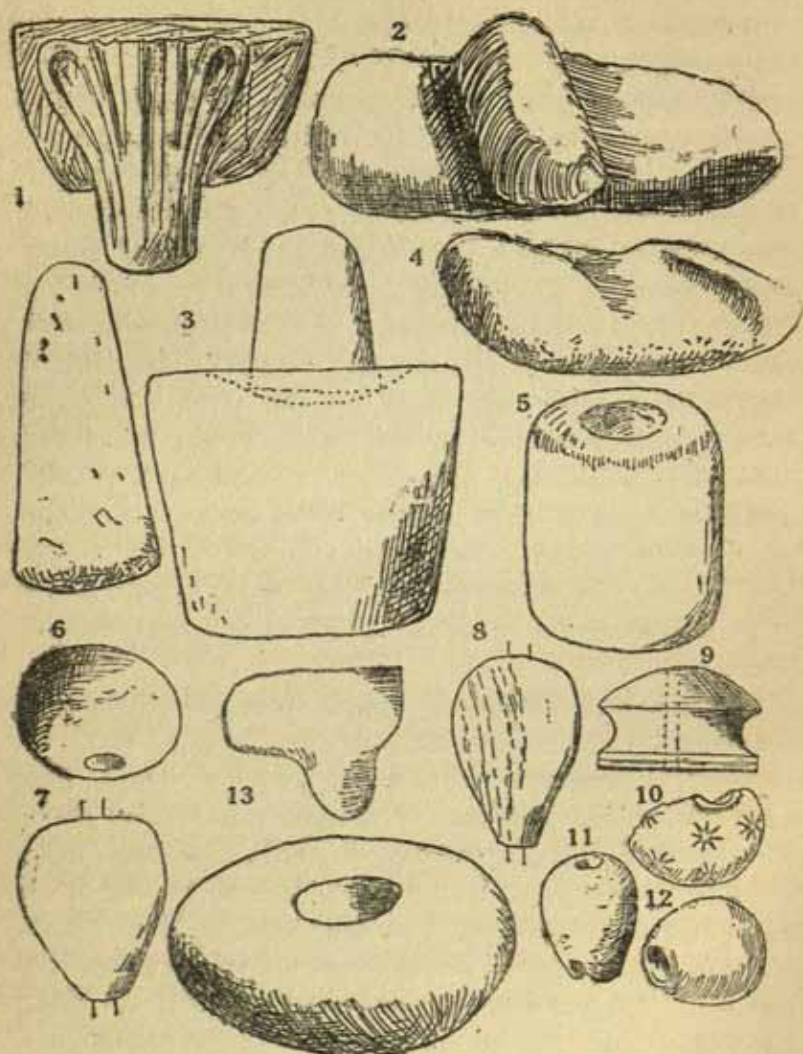


FIG. 43.



This was not, however, the only type of mortar in use. In Fig. 43 (3) we have quite a different kind of mortar, which is particularly interesting in that the pestle was found with it—a somewhat rare occurrence.

But the commonest implement used for grinding the grain to flour was the “saddle-quern” [cf. Fig. 43 (2), (4)]. It consists of two stones, the “upper” and “nether” millstone. The lower stone is shaped like a saddle, hence the name “saddle-quern.”<sup>1</sup> It generally measures from about 1 foot 7 inches to 2 feet 8 inches in length, and from about 10 inches to 1 foot 4 inches in breadth, the upper surface being slightly hollowed. The “upper” stone is a “long oval in horizontal section and plano-convex in vertical section,”<sup>2</sup> and is of course lighter and more easily transported than the “nether millstone,” hence the prohibition against taking the “upper” millstone as a pledge (cf. Deut. xxiv. 6).

Another expedient for grinding is exhibited in Fig. 43 (13). It consists of two stones with plane faces, which lie in contact. The nether stone often has a raised collar, forming a mortice into which a similar-shaped tenon in the middle of the upper stone fits, and within which it is rotated. Implements of this character are usually of small size, and may have been used for grinding paint.

An interesting stone object recovered at Gezer is shown in Fig. 43 (5). These cylindrical stones have a short perforation in both ends worn smooth, and Professor Macalister (*ib.* ii, p. 45) is disposed to regard them as the bases of fire-drills in which the latter were rotated.

A large number of rubbing-stones or grindstones have

<sup>1</sup> Cf. the Hebrew term for the upper millstone, *pelah rekeb*, i.e. “riding millstone.”

<sup>2</sup> Cf. *Gezer*, ii, p. 36.

been brought to light. They are made of various kinds of stones, including basalt, limestone, and granite.<sup>1</sup>

Lastly, mention should be made of some stone slabs with grooves, found in the Hellenistic strata. The explanation of these stones is not certain, but it seems probable that the grooves were made with a view to rendering the slabs more suitable for grinding.

Mace-heads form another class of stone objects of which a considerable number have been brought to light. They are either spherical or apple-shaped or else pear-shaped [cf. Fig. 43 (6)–(12)]. The two specimens reproduced in (7), (8) are especially interesting in that they were placed under a skeleton in a cave-tomb at Gezer.<sup>2</sup> The two specimens illustrated in (6) and (11) were unearthed at Jericho.<sup>3</sup> Sometimes they were decorated [cf. (10)]; these were probably used for ceremonial purposes, like the elaborately ornamented mace-heads discovered in Egypt and Babylonia. Generally limestone, quartzite or some other white stone is the material used for these egg-shaped perforated balls. They average from 1½ to 2½ inches in length, and as a rule were carefully polished.

A vast number of throwing-stones have been found; some of these were small, and no doubt were simply cast by the hand, but others are far too large and heavy to have been projected in this way, and one must accordingly assume that some form of ballista was used.

Weights, again, were generally made of stone, the compact, heavy stones which admit of a polish, such as basalt, quartzite, jasper, and hæmatite, being generally employed. They assumed various shapes, as may be seen from the examples given [Fig. 44 (1)–(6)].<sup>4</sup>

<sup>1</sup> Cf. Sellin-Watzinger, *Jericho*, pp. 154, 167; *Gezer*, i, pp. 77, 83, 84, 123, etc.; Bliss-Macalister, *Excavations* . . . , p. 143.

<sup>2</sup> Cf. *Gezer*, i, p. 110.      <sup>3</sup> Cf. Sellin-Watzinger, *Jericho*, p. 120.

<sup>4</sup> Cf. *Gezer*, ii, p. 280; Bliss-Macalister, *Excavations* . . . , p. 145.



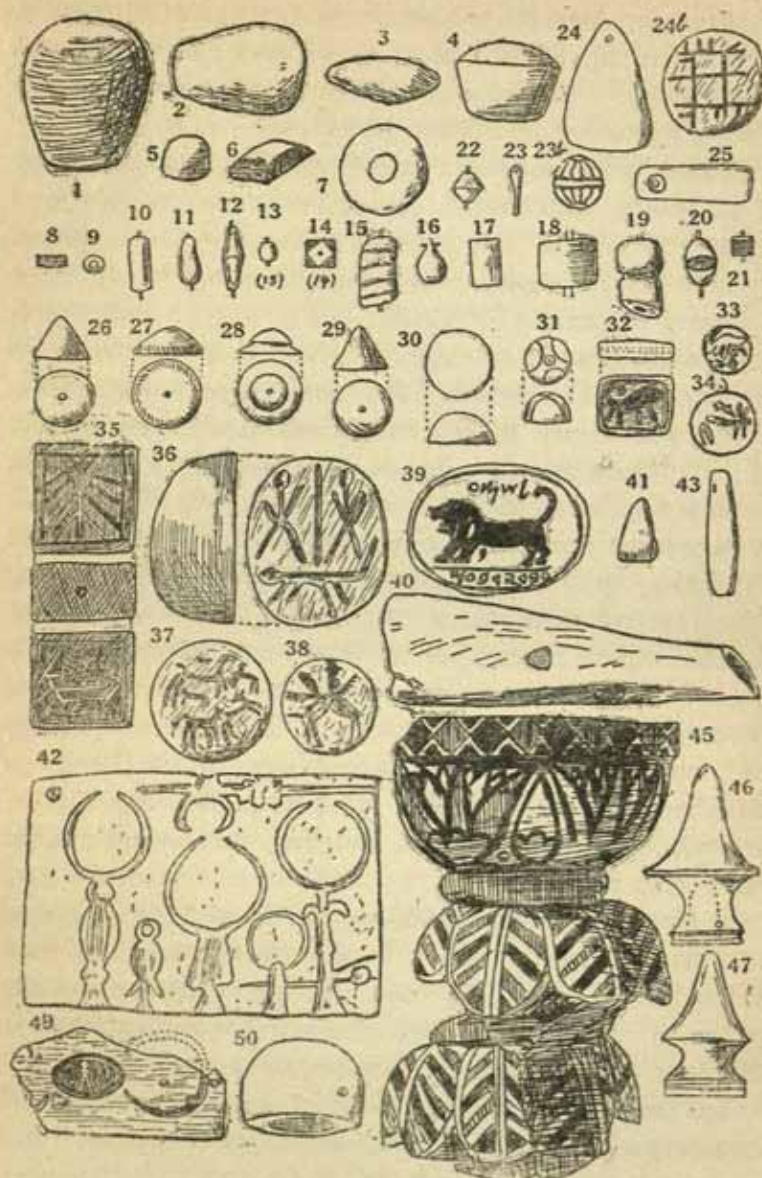


FIG. 44.



Stone spindle-whorls are also of comparatively frequent occurrence. Whorls of this character consist of circular discs of stone, being about  $1\frac{1}{2}$  inches in diameter and  $\frac{3}{8}$  inch thick. The stones used for this purpose include diorite, limestone, alabaster, and clunch.<sup>1</sup>

Probably the earliest type of spindle-whorl consisted in a rough, untrimmed, and unperforated pebble tied on to the end of the spindle, such as is used to-day. Spindle-whorls, again, were sometimes made of bone and very frequently of pottery (cf. p. 291). A common but peculiar type of spindle-whorl is that made by sawing off and perforating the head of a human femur.

It is sometimes difficult to determine whether objects of this character are beads or spindle-whorls; this remark applies to the limestone ring seen in Fig. 44 (7). A very large number of stone beads have been recovered, exhibiting great variety in material, size, and shape.<sup>2</sup> They extend from the First Semitic Period right down to Hellenistic times; but as time went on, stone beads became less common in proportion to those made of porcelain and other materials. Carnelian is perhaps the commonest kind of stone used, but beads of amethyst, limestone, basalt, marble, agate, jasper, jade, crystal, quartzite, cyanus, marble, and other stones have also been found.

A form very characteristic of the First Semitic Period is a flat cylindrical disc, usually countersunk on both sides [cf. Fig. 44 (8), (9)]. These beads are usually made of carnelian, though the specimen illustrated in Fig. 44 (9) is made of limestone.

In the Second Semitic Period, on the other hand, countersunk discs are rare, while certain new forms came into vogue. Examples of the new styles are seen in Fig. 44 (11), (22), the former being drop-shaped

<sup>1</sup> Cf. *Geser*, ii, p. 71.

<sup>2</sup> Cf. *ib.* ii, pp. 104-14.

and the latter a double cone. Small spherical and barrel-shaped beads of carnelian and amethyst also occur, while large, clumsy beads of limestone are also found. On the whole, however, the beads of this period are smaller than those of the First Semitic Period. The flat pendent type [cf. Fig. 44 (23)] is also characteristic of this period.

In general, the stone beads of the Third Semitic Period resemble those of the preceding period in shape and size, and include the barrel-shaped, the drop-shaped, the double conical, and the cylindrical types. Celt-shaped pendant beads now came into use. They are generally made of carnelian and were possibly amulets.<sup>1</sup> These last down to the Hellenistic Period [cf. Fig. 44 (41)], but they are always rare. Minute beads seem to have been very popular in this period.

In the Fourth Semitic Period carnelian was again the commonest stone used for beads. The beads of this age are characterized by a monotony and a lack of variety both in shape and ornamental treatment. The barrel-shaped, spherical, spheroid, cylindrical, the double cone, and the flat disc are the commonest types.

The most characteristic amulet of this period is a club-shaped pendant of ivory, bone, or stone, perforated for suspension at the narrow end.<sup>2</sup> This type also occurs in the earliest Semitic strata, but becomes very common in the Fourth Semitic Period. Most of these amulets that have been recovered are made of bone or ivory, but some specimens are made of stone, e.g. limestone, slate [cf. Fig. 44 (43)], and hæmatite.

The styles of bead prevalent in the Hellenistic Period are also somewhat uninteresting. Some handsome

<sup>1</sup> Cf. *P. E. F. Annual*, 1912-13, p. 61, and *Geser*, ii, pp. 107, 253, 254.

<sup>2</sup> Cf. *Geser*, ii, p. 452; *P. E. F. Annual*, 1912-13, p. 62.



glass beads were found in the Hellenistic strata (cf. Macalister, *Gezer* ii, p. 112).

Buttons were very frequently made of stone. They are usually made of diorite, but quartzite and clunch buttons are also found. They differ from spindle-whorls in that they are smaller and often have two perforations. They have flat circular bases, but the tops vary considerably [cf. Fig. 44 (26), (27), (28)].

The button-like objects without any perforation [cf. Fig. 44 (30), (31)] are perhaps rightly regarded by Macalister as draughtsmen.<sup>1</sup>

Reference has already been made to the celt-shaped bead amulets (?), but apart from these a large number of undoubted stone amulets have been recovered. They are generally made up of black slate, basalt, or some dark-coloured stone, and consist of rectangular or triangular (usually the former) discs varying from about 2 to 4 inches in length, with a counter-sunk perforation in the upper end [cf. Fig. 44 (24), (25)].

Apart from the scarabs and cylinder-seals, which belong rather to the sphere of Egyptian and Mesopotamian archæology respectively,<sup>2</sup> a considerable number of stone seals have been recovered, of which a few examples may here be given. They show great variety in shape, the commonest being "conical with a slightly convex base on which the device was engraved." They are made of various stones, including basalt, limestone, marble, and hæmatite. Down to the Third Semitic Period, scarabs and cylinders were practically used exclusively. Macalister,<sup>3</sup> however, succeeded in finding

<sup>1</sup> Cf. *Gezer*, ii, p. 90.

<sup>2</sup> Cf. *ib.* ii, p. 293. It is true that some of the scarabs as well as the cylinder-seals are local imitations, but they are all founded on foreign models.

<sup>3</sup> Cf. *ib.* ii, p. 294, and Plate CC, Fig. 2.



one seal in the First Semitic strata at Gezer [cf. Fig. 44 (32)]. It is a rectangular disc of basalt, on which an animal with a curved tail is depicted walking. In Fig. 44 (33), (34), (35), (36), we have four seals of the Third Semitic Period. The first (33) is made of basalt, and apparently represents a deer suckling its young. On the third (35), also of basalt, we see a tree and an animal walking. The second and fourth examples, (34), (36), are made of limestone, the former showing the rude figure of a stag and the latter two rude figures of men with a vertical stroke between them, and an animal below.

Two limestone seals of the Fourth Semitic Period are shown in Fig. 44 (37), (38); the one (37) shows six animals, and on the other (38) we see two stags fighting.

An interesting seal belonging to the same period was discovered at Bethshemesh.<sup>1</sup> It is a scaraboid bead of brown-coloured stone, and bears a Hebrew inscription. The legend consists of two proper names separated by a double line. In the repository of the tomb where this seal was unearthed, a bowl was brought to light inscribed with the same type of characters as those exhibited on the seal. The script represents a somewhat later development than that found on the Moabite Stone or the Calendar inscription from Gezer, and both seal and bowl are to be dated about 700 B.C.

Another very interesting seal bearing a Hebrew inscription<sup>2</sup> was found at Megiddo. The impression of this seal is shown in Fig. 44 (39). The pictorial device is a vividly depicted lion, and the

<sup>1</sup> Cf. *P. E. F. Annual*, 1912-13, pp. 91, 92.

<sup>2</sup> Cf. Steuernagel and Schumacher, *Tell el-Mutesellim*, pp. 99, 100, and Fig. 147.

inscription, which is written in old Hebrew characters, reads: *ššema' 'ebed yārob'ām*, "Belonging to Shama, servant of Jeroboam." It is possible the Jeroboam referred to is King Jeroboam II of Israel (c. 783-743 B.C.).

The stone seals of the Hellenistic Period are of little interest, the devices generally being of a very ordinary geometrical character [cf. Fig. 44 (24*b*)]. The scarabs discovered in Palestine have a very wide chronological range, and extend from the Second Semitic Period to Hellenistic times. Some of the specimens recovered are direct importations, while a large number are more or less unsuccessful imitations of Egyptian models.<sup>1</sup> They are made of various kinds of stone, porcelain, ivory, bone, and glass.

The stones used include steatite (which is by far the commonest), basalt, diorite, limestone, slate, jade, amethyst, and agate.

The cylinder-seals extend over the same periods, and in like manner are either direct importations from Mesopotamia or local copies of foreign models.<sup>2</sup>

Beads were by far the commonest stone objects of personal adornment. They were doubtless strung on threads, and, indeed, actual necklaces have been discovered.<sup>3</sup> A remarkable specimen was found in a small jug in the room of a Pre-Israelite house at Jericho.<sup>4</sup> The centre-piece of this necklace consists of a perforated amulet of thick white limestone, apparently fashioned to represent a quadruped. The eyes are indicated by

<sup>1</sup> Cf. *P. E. F. Annual*, 1912-13, p. 61; *Gezer*, ii, p. 314.

<sup>2</sup> The scarabs and cylinder-seals belong rather to the spheres of Egyptian and Mesopotamian archaeology respectively, and no attempt can be made to deal with them here.

<sup>3</sup> *P. E. F. Annual*, 1912-13. Plates XXXI, XXXII.

<sup>4</sup> Cf. Sellin-Watzinger, *Jericho*, p. 121, Abb. 112.



small holes. The other beads are made of limestone and various materials, including shell, carnelian, and faience. Those made from the latter material must have been imported from Egypt.

Various other objects of stone have been recovered, one of particular interest being the stone whistle (?) reproduced in Fig. 44 (40). It belongs to the Third Semitic Period and consists of a small conical tube of steatite, 4 inches long,  $1\frac{1}{8}$  inches broad at one end, and just under half an inch at the mouthpiece.

Crucibles for melting metals were again sometimes made of stone, while the moulds into which the liquid metal was poured were frequently made of the same material.<sup>1</sup>

One of the most interesting of these stone moulds is one made for a small bell, including the clappers, while another, discovered in late Third Semitic débris at Gezer was obviously made for various articles of jewellery [cf. Fig. 44 (42)].<sup>2</sup> A further example of a mould, also from Gezer, appears in (49).

Numerous ornamental dagger pommels, made of polished white stones, have been brought to light, of which three specimens are shown in Fig. 44 (46), (47), (50). None of them was found associated with the dagger to which it belonged.

Altars were sometimes made of stone (cf. Fig. 45). The specimen<sup>3</sup> shown here consists of a small rectangular block of limestone, with a projecting cornice and a hollow about 8 inches in diameter in its upper surface. But perhaps the most interesting altar from the point

<sup>1</sup> Cf. *Gezer*, ii, p. 260.

<sup>2</sup> Cf. Bliss-Macalister, *Excavations* . . . , p. 145; Macalister, *Gezer*, ii, p. 261, Fig. 407.

<sup>3</sup> Cf. Schumacher, *Mitteil. und Nachricht. des Deutsch. Pal.-Ver.* 1906, p. 23 and Fig. 27.



of view of stone-working is that shown in Fig. 44 (45).<sup>1</sup> It was apparently an incense-altar. The upper part consists of a bowl of limestone, about 6 inches in diameter, and the lower part of two rows of foliage, between and above each of which is a torus. The outside of the bowl is painted with geometrical figures and flowers. The colours used in the decoration of this unique object are yellow ochre, red and cobalt blue, all of which are in an excellent state of preservation. The lower part has disappeared, its present height being only 9 inches but when complete it was probably about 2 feet high.

Scrapers of porous volcanic stone were common in the



FIG. 45 (see Vincent, *Canaan*, Fig. 133).

later periods. They consist of rectangular or oval discs, with vertical ridges running across them to serve as handles. Like the scrapers in use in Palestine to-day, they were possibly used for rubbing away hard skin from the feet or other parts of the body.

In later times slabs of limestone were used for writing purposes. Most of the inscriptions on stone were in the Greek language, but in an interesting specimen from Gezer (cf. *ib.* ii, p. 118), both Greek and Hebrew letters are found, together with two rudely drawn animals. The richest collection of inscriptions

<sup>1</sup> Cf. Steuernagel and Schumacher, *Tell el-Mutesellim*, pp. 126-7, Abb. 190, and the frontispiece to vol. B.

on stone was discovered at Tell Sandahannah. The majority of these are Greek, though some in the Hebrew language and script were also found. One of the latter contains three lines of early square Hebrew writing.

But apart from the Moabite Stone, which was discovered on the east side of the Jordan and therefore is not strictly a Palestinian monument, the two best-known inscriptions on stone are the "Siloam Inscription" and the "Calendar Tablet" from Gezer. The former was discovered at Jerusalem in 1880. It occupies a niche in the rock some 20 feet from the lower end of a long subterranean aqueduct over 1,700 feet long, through which water was conveyed from the Virgins' Pool to the Pool of Siloam at the entrance to the Tyropæon Valley. The six remaining lines of the inscription read as follows: "The boring; and this has been the method of the boring; while yet . . . the pick-axe, each to his fellow, and while there were still three cubits to . . . the call of one crying out to his fellow, for there has been an excess in the rock to the right . . . on the day of boring they hewed this mine, each to meet his fellow pick to pick; and the waters flowed from the source to the pool for two hundred and a thousand cubits; and an hundred cubits has been the height of the rock above this mine." From this inscription it seems clear that the workmen, pressed by the urgency of the occasion, probably the imminence of a siege, had commenced tunnelling at both ends and had overlapped. It is written in the old Hebrew characters, which closely resemble those found on the Moabite Stone and the Phœnician Inscriptions.

The "Calendar" inscription from Gezer (cf. Plate XVIII) is written on a small slab of limestone, measuring  $4\frac{1}{2}$  by  $2\frac{3}{4}$  inches. It occupies eight lines and is written



in the old Hebrew characters. This inscription, which has been independently translated by Professor Lidzbarski, Professor Buchanan Gray, and Dr. Pilcher, and has also been discussed by Professor Ronzevalle, Dr. Daiches, Dr. G. A. Cooke, Professor Dalman, Père Hugues Vincent, Professor Marti, and other scholars,<sup>1</sup> contains a list of months, the names of which all relate to the agricultural operations which took place during the months in question. Thus one month is called the "month of fruit-harvest," "ingathering," or "storage," another the "month of the flax-harvest," while a third is known as the "month of the barley-harvest." What object was served by this so-called "Calendar Tablet" cannot possibly be determined. Lidzbarski, Pilcher, and Macalister regard it as the work of a peasant, who was proud of his ability to write, and was only too delighted to seize any opportunity to air his powers in this direction.

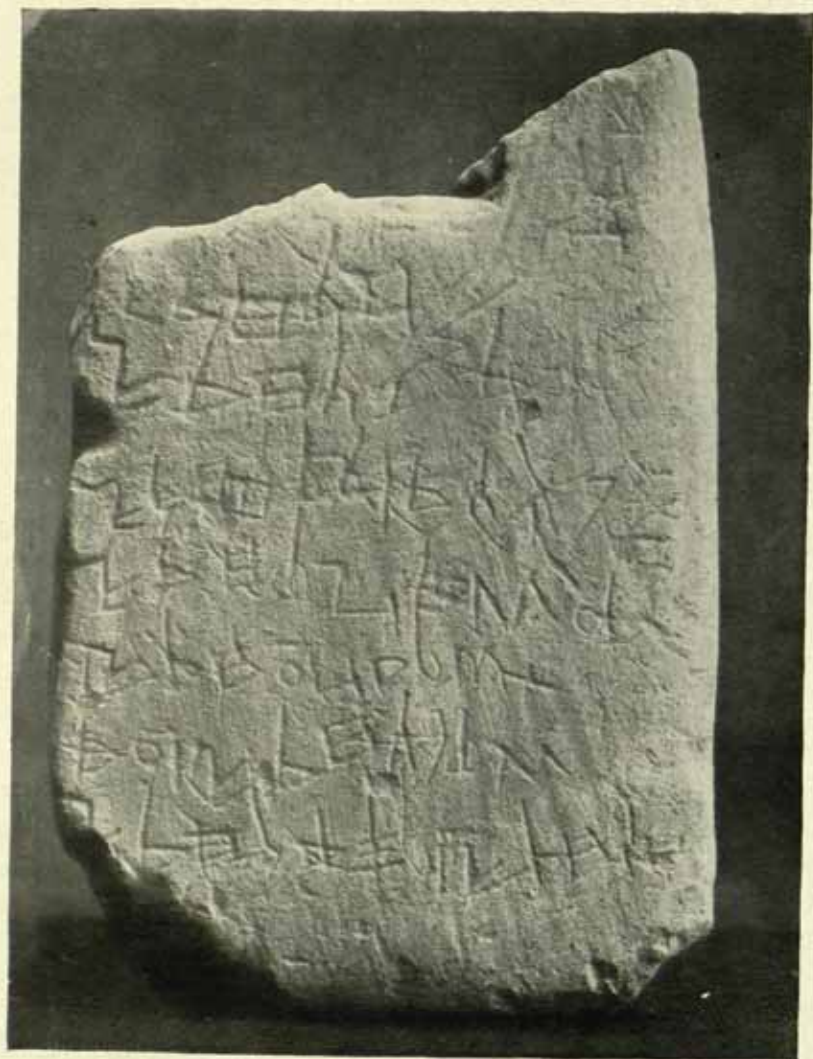
There is a difference of opinion as to the date of the inscription. Lidzbarski, Buchanan Gray, and Ronzevalle assign it to the eighth century B.C.; Vincent, Marti, and Cooke, on the other hand, date it in the sixth century B.C.

Lastly mention should be made of a number of limestone slabs with lines ruled on them, apparently constituting a board for some game like draughts.

<sup>1</sup> Cf. *Q. S.*, 1908, p. 271; 1909, pp. 16, 26-34, 88, 118, 284, 285 ff.; 1910, p. 238; *Revue Biblique Internationale*, 1909, pp. 243, 244 ff., 493, 494 ff.; *Zeit. für Alttest. Wissens.*, 1909, pp. 222, 223 ff.; Driver, *Notes on Samuel* (ed. 2), p. vii; Macalister, *The Excavation of Gezer*, ii, pp. 24, 25 ff.



PLATE XVIII



*(By kind permission of the Palestine Exploration Fund.)*

THE "CALENDAR-TABLET."

To face p. 179.



## CHAPTER V

### METALLURGY

BRONZE was the dominant metal in Palestine, and seems to have been nearly always used in preference to pure copper. "For smelting the metal a blast was used, transferred to the furnace from a bellows by a *tuyère* of very coarse pottery."<sup>1</sup> The metal, duly melted in earthenware vessels, was transferred by means of rude spouted saucers into the prepared moulds, which were usually made of stone, though sometimes of pottery. A number of these moulds have been recovered, most of them being for casting spears, swords, arrow-heads, axes, and similar weapons and implements.

A certain number of copper objects have, however, been recovered, a group of which appear in Fig. 46. With the exception of the copper adze (11), which was discovered in the stratum containing the remains of the First City at Lachish,<sup>2</sup> they were all found in the Pre-Israelite strata at Jericho.<sup>3</sup> They comprise axes, hatchets, chisels, and similar implements. They vary from about  $2\frac{1}{2}$  to  $8\frac{1}{2}$  inches in length, the shortest being the hatchet in (15), and the longest, the awl shown in (10). The most noteworthy implement in this group is the axe with two holes (12), perhaps designed for

<sup>1</sup> Cf. Macalister, *Gezer*, ii, p. 265.

<sup>2</sup> Cf. Bliss, *A Mound of Many Cities*, p. 73.

<sup>3</sup> Cf. Sellin-Watzinger, *Jericho*, pp. 116 ff.



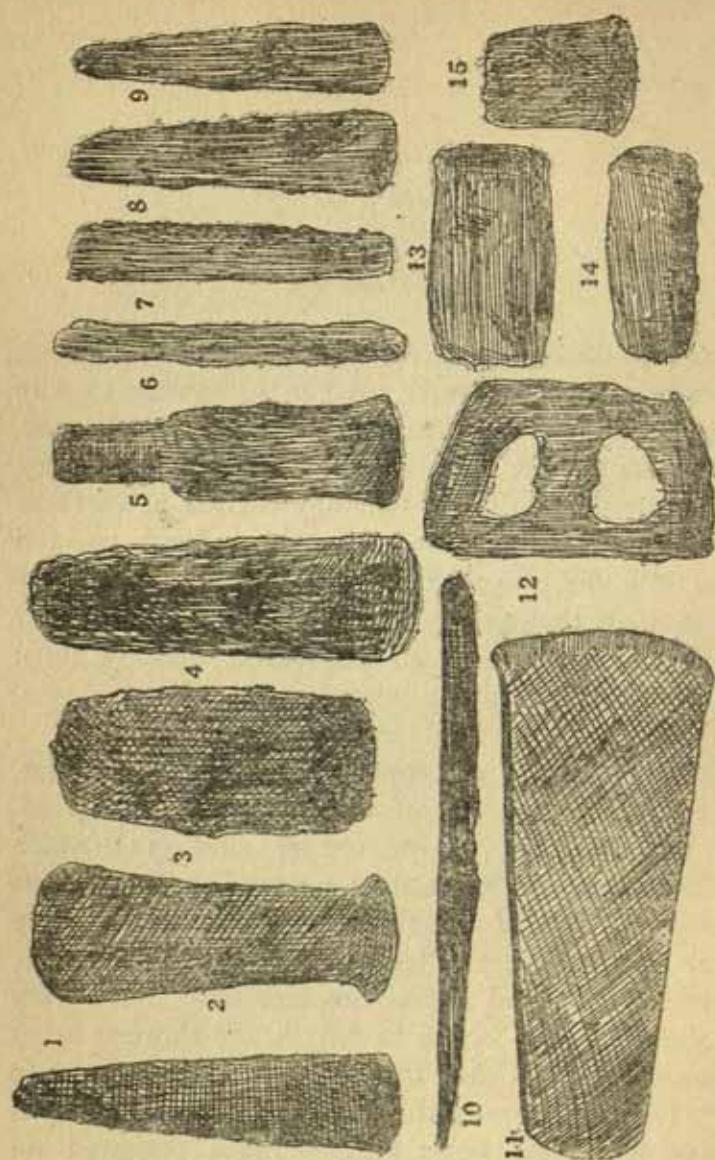


FIG. 46.

the purpose of reducing the weight. This peculiar type is essentially Syrian.<sup>1</sup> Weapons were also sometimes made of copper,<sup>2</sup> but the artificially composed bronze was the metal more generally used in the early period for both weapons and tools.

A selection of fine bronze spear-heads is seen in Fig. 47.<sup>3</sup> The spear-head illustrated in (23), which has ribs on the side, is a particularly fine specimen. It will be observed that both tanged and riveted spear-heads occur. The specimens shown in (24), (25) are of a type common at all periods; the blades are triangular, the tips somewhat rounded, and the tangs flat and tapering. They respectively measure  $5\frac{3}{4}$  inches and  $7\frac{3}{4}$  inches in length. Sometimes the tang is lozenge-shaped, as in the example given in (26). Some spear-heads, again, are fixed to their handles by means of hollow sockets. Such is the case with those reproduced in (19), (20). In the socket of the first of these, the stump of the wooden shaft still remained.

The fine spear-head from Lachish shown in Fig. 48 has a piece of a knife-blade and an ornament in the shape of a dog fastened to it through action of the heat.

Arrow-heads<sup>4</sup> were made of flint or of bronze down to the Fourth Semitic Period. Those made of bronze generally partake of much the same form as spear-heads. Normally, the blade is oval or leaf-shaped [cf. Fig. 47 (13), (16)], with a tang projecting from the butt-end. Of this general type there are many varieties, but the latter afford no evidence in regard to the chronological development of the type. The blade is generally a pointed oval, but there is great variety in the proportion

<sup>1</sup> Cf. Sellin-Watzinger, *Jericho*, p. 118.

<sup>2</sup> Cf. *Gezer*, ii, p. 313.

<sup>3</sup> Cf. *ib.* ii, p. 374 *et passim*.

<sup>4</sup> Cf. *ib.* ii, pp. 371 f., *et passim*; *P. E. F. Annual*, 1912-13, p. 59.

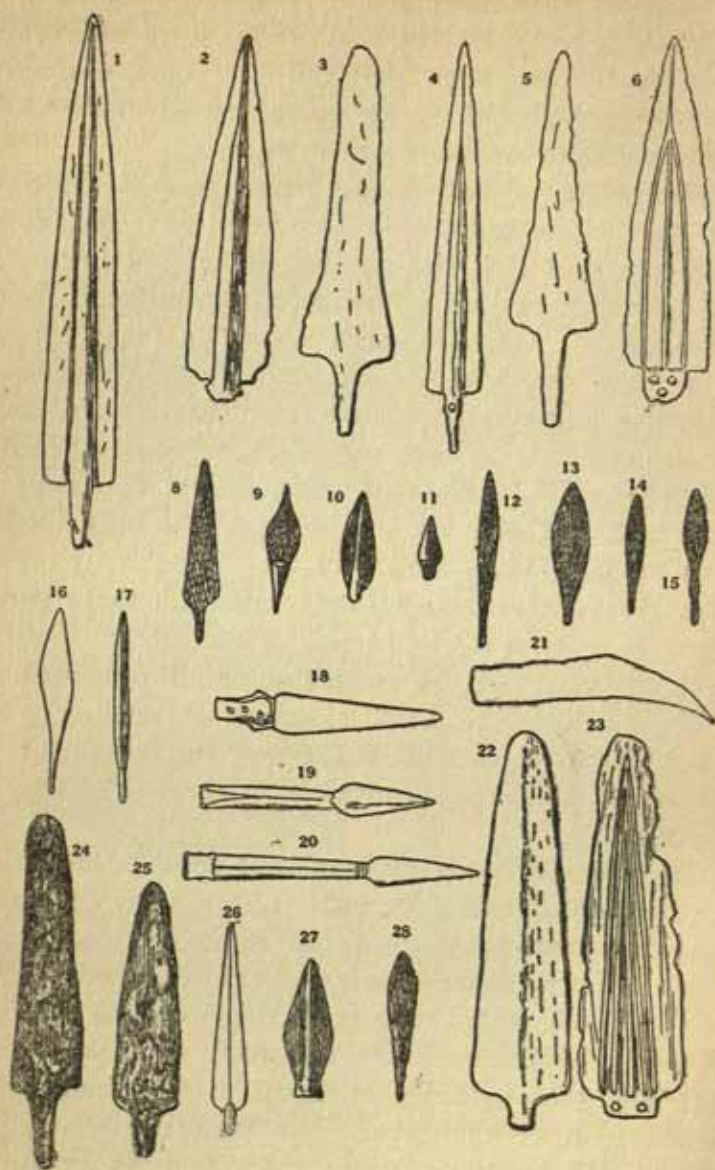


FIG. 47.



of length to breadth, as may be seen by comparing (12) with (13). The tang, again, is ordinarily a little shorter than the blade; sometimes, however, it is almost absorbed in the base of the blade [cf. (13)], while in other cases it is exaggerated as in (15). In the same way the junction between the blade and tang is treated variously; in the majority of cases the one passes



FIG. 48 (see Bliss, *A Mound of Many Cities*, p. 36, Fig. 70).

almost imperceptibly into the other [cf. (13), (14)], but there are also numerous specimens which exhibit a distinct and pronounced change of curvature at the junction [cf. (8)]. Generally the tang is flat and rectangular in shape, and is of the same thickness as the blade, but some arrow-heads have circular, square, or lozenge-shaped tangs. As a rule the tang terminates

in a sharp point. In the Fourth Semitic Period new types make their appearance. Thus in (9) we have a specimen of the type characterized by the ogee head. In the Hellenistic Period, again, fresh types are introduced, including barbed arrow-heads, arrow-heads having sockets instead of tangs [cf. (10)], and three-winged arrow-heads [cf. (11)]. A rare form is seen in (17); it consists of a narrow four-sided spike provided with a tang.

Swords and daggers appear to have been used for thrusting rather than cutting, and the blades are accordingly short and pointed. Three fine examples exhibiting as many types are illustrated in Fig. 49 (1), (2), (10). The fine sword shown in Fig. 49 (13) is Mycenæan. The handle is generally made separate from the blade, but is sometimes of one piece with it, as in the iron sword shown in (10). But the most remarkable bronze weapon recovered is the well-known scimitar from Gezer [cf. Fig. 50 (19)]. This fine scimitar is 1 foot 11 inches long. The blade, which is decorated with longitudinal ribbing, is curved, the cutting edge being on the convex side of the blade. Below the blade is a straight portion, rectangular in section, which terminates in a handle. The latter is flanged for receiving hafting-plates of ivory, bone, or wood. This weapon vividly recalls the bronze scimitar of the Assyrian King Adad-nirari I (about 1325 B.C.).<sup>1</sup>

A large number of bronze knives have been brought to light (cf. Fig. 49). The specimen shown in (7) is of a type very characteristic of the Second Semitic Period. The butt-end of the blade is broken away, but it doubtless had a rivet-hole or holes like the similar knife in Fig. 49 (9). A variation of the same type appears in Fig. 49 (16). This specimen has re-

<sup>1</sup> Cf. the writer's *Mesopotamian Archaeology*, p. 254.

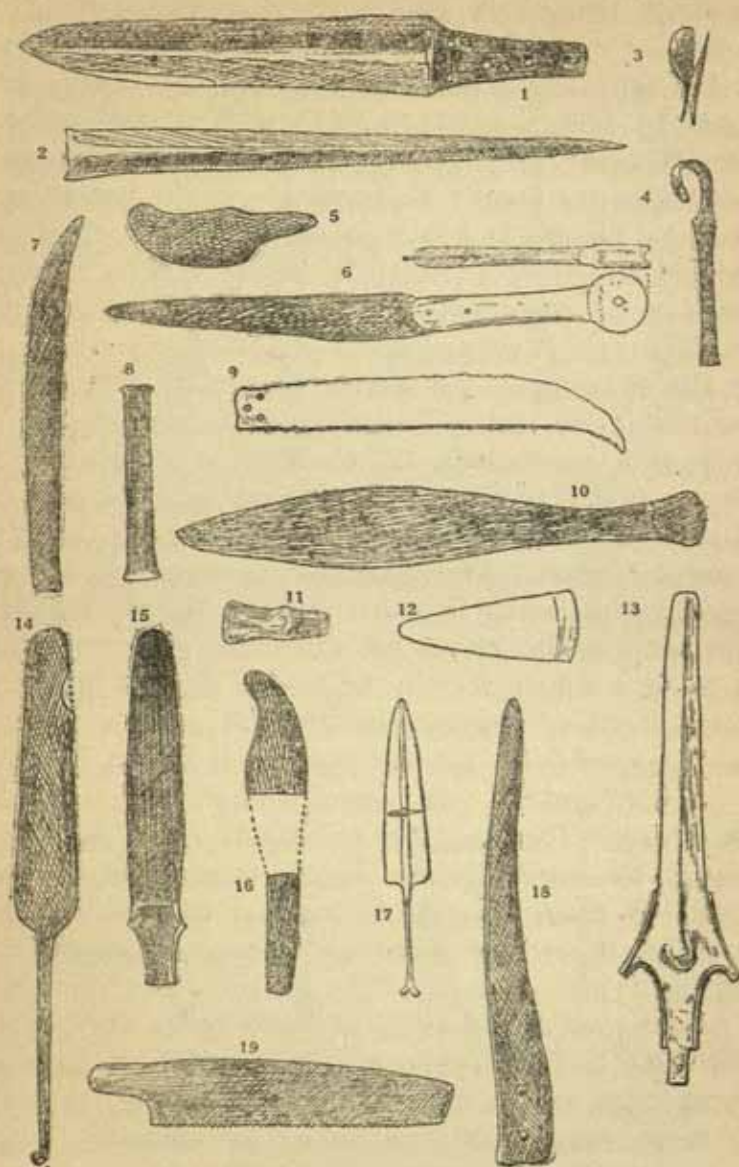


FIG. 49.



tained its three rivet-holes at the lower end. This type is fairly common in tombs of about 2000 B.C. The knife in Fig. 49 (18) differs in having a concave edge, and in being widest at the butt-end. Tanged knives are again of fairly frequent occurrence; the tang of the example here given [Fig. 49 (14)] is exceptionally long and terminates in a hook. The tang in this case must have extended the whole length of the handle, the hook at the end being meant to keep the haft in position. Sometimes, on the other hand, the tang was split at the end and bifurcated to prevent the haft slipping off [cf. Fig. 49 (17)]. Sometimes the knives have a double tang,<sup>1</sup> but this is very rare. Sometimes, again, the tang of a knife is a continuation of the back of its blade [cf. Fig. 49 (5)]. As a rule the termination of the tang is square, or chisel-pointed, or else it ends in a flat, triangular point. The example illustrated in (6) is especially interesting in that it retains its ivory handle. The tangs of flat knives are sometimes curled over so as to form a loop for the finger [cf. Fig. 49 (4)]. A common type of bronze knife, probably used for cutting meat or some other domestic purpose, is seen in Fig. 49 (15). The blade is round-tipped and both of the edges are sharp. The tang, which has two rivet-holes, is flanged for receiving two hafting-plates, probably of wood. A small toilet knife together with its sheath, to which it is now fixed by corrosion, appears in Fig. 49 (3).

Bronze javelins and axe-heads [cf. Fig. 49 (12)] have also come to light, while in Fig. 49 (8) we have a bronze chisel with a flat nail-head, and in Fig. 49 (19) a bronze saw. This saw, which is unusually long (1 foot 2 inches), is practically a knife with the edges nicked. Hammer-heads, again, were occasionally made

<sup>1</sup> Cf. Macalister, *Gazer*, Plate CXCVIII, 14.

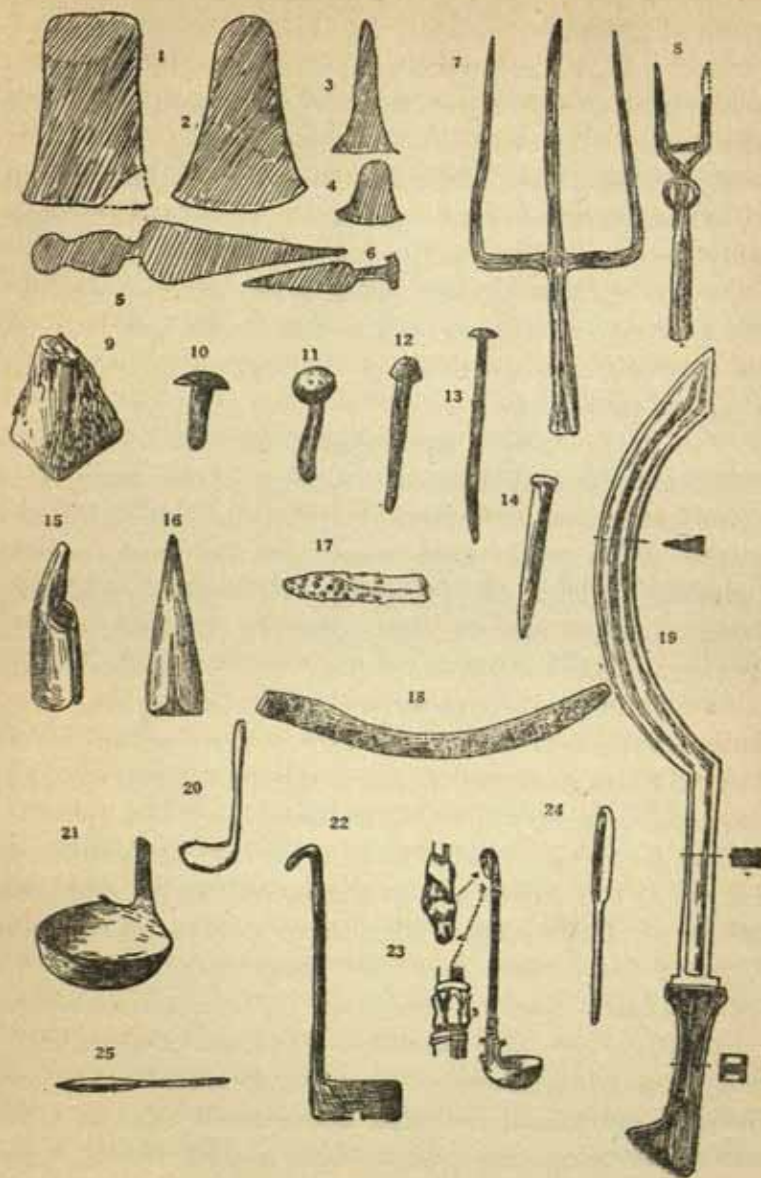


FIG. 50.



of this metal [cf. Fig. 50 (9)], while awls were generally made of bronze.

In Fig. 49 (11) we have a fine bronze axe-head discovered at Bethshemesh,<sup>1</sup> while occasionally double axe-heads of the same metal are also found.<sup>2</sup>

A number of small imitation implements and weapons in bronze have come to light [cf. Fig. 50 (1)-(6)]; possibly they constituted votive offerings.

In the earliest periods, nails were made exclusively of bronze, and its use for the finer nails was retained to the end. A selection of bronze nails is given in Fig. 50 (10)-(14).

The same metal was again used for agricultural implements and appliances. Sickles, for example, were sometimes made of bronze [cf. Fig. 50 (18)], while the heads of ox-goads were nearly always made of this material [cf. Fig. 50 (15), (16)]. Reference has already been made to its use for domestic purposes, and in Fig. 50 (7), (8) we see a bronze flesh-hook and a bronze fork, and in (17) what appears to be a bronze file. The latter consists of a hollow tube, 3 inches long, closed at the end and perforated with a number of holes. It is perhaps a bread-file for crumbling bread.<sup>3</sup>

Spoons, again, were made of bronze in later times [cf. Fig. 50 (20)-(23)]; in the earlier days they were made of shell.<sup>4</sup> From the shape of the spoons here illustrated it is clear that they must have been used for lifting liquids from a deep bowl. The specimen shown in (23) is a very fine example. It measures  $9\frac{3}{8}$  inches in length, and is adorned with an animal's head at the end. Bronze spatulæ have also come to light, two good examples being the spatula with a folded oval spoon

<sup>1</sup> Cf. *P. E. F. Annual*, 1912-13, Plate XIV, 7.

<sup>2</sup> Cf. Steuernagel and Schumacher, *Tell el-Mutesellim*.

<sup>3</sup> Cf. *Geser*, ii, p. 44.

<sup>4</sup> Cf. *ib.* ii, p. 46.



represented in Fig. 50 (24), and the similar specimen in the same figure (25).

Cooking-pots were sometimes made of this metal.<sup>1</sup> Two good examples of bronze cooking-bowls are illustrated in Fig. 51 (1), (2). Neither of them can be assigned to a later date than 1000 B.C. A fine specimen of a bronze bowl is seen in Fig. 51 (4), while a saucer, a much crushed and distorted pot and the handle of a pot are also reproduced [cf. Fig. 51 (15), (5), (17)]. The pot in question is 8 inches high, and the somewhat elaborate bronze handle measures  $6\frac{1}{4}$  by  $4\frac{3}{8}$  inches. Another pot discovered among the Philistine tomb deposits at Gezer appears in Fig. 51 (7), while in Fig. 51 (21) we have the reconstructed remains of a two-handled bronze bowl discovered in the necropolis at Bethshemesh.<sup>2</sup>

Bronze was the commonest metal used for pins. A large number of bronze pins<sup>3</sup> have been recovered, of which a selection is given here [cf. Fig. 51 (3), (6), (8)-(14)]. Those shown in (3) are bent like a modern hairpin and possibly were used for the same purpose. The ornamental pin in (6) is bronze gilt. The handle is ornamented with a continuous beading. The butt-end of the handle has a lotus flower incised on it; at the junction between the handle and the rest of the pin is a flat guard to which a movable ring is suspended. The pin tapers regularly from this guard to the tip. The total length of the pin is  $5\frac{1}{2}$  inches. The heads of pins are not infrequently club-shaped (13), (14), while in (8) we have one of the common Cypriote type with an eye on the shaft of the head. Pins with different kinds of head are illustrated in (10), (11), (12). The

<sup>1</sup> Cf. *Gezer*, i, p. 122, Fig. 43.

<sup>2</sup> Cf. *P. E. F. Annual*, 1912-13, p. 79, Plate XLIV, B, item 2.

<sup>3</sup> Cf. *Gezer*, i, pp. 126, 301, 359; ii, pp. 85, 87, etc.

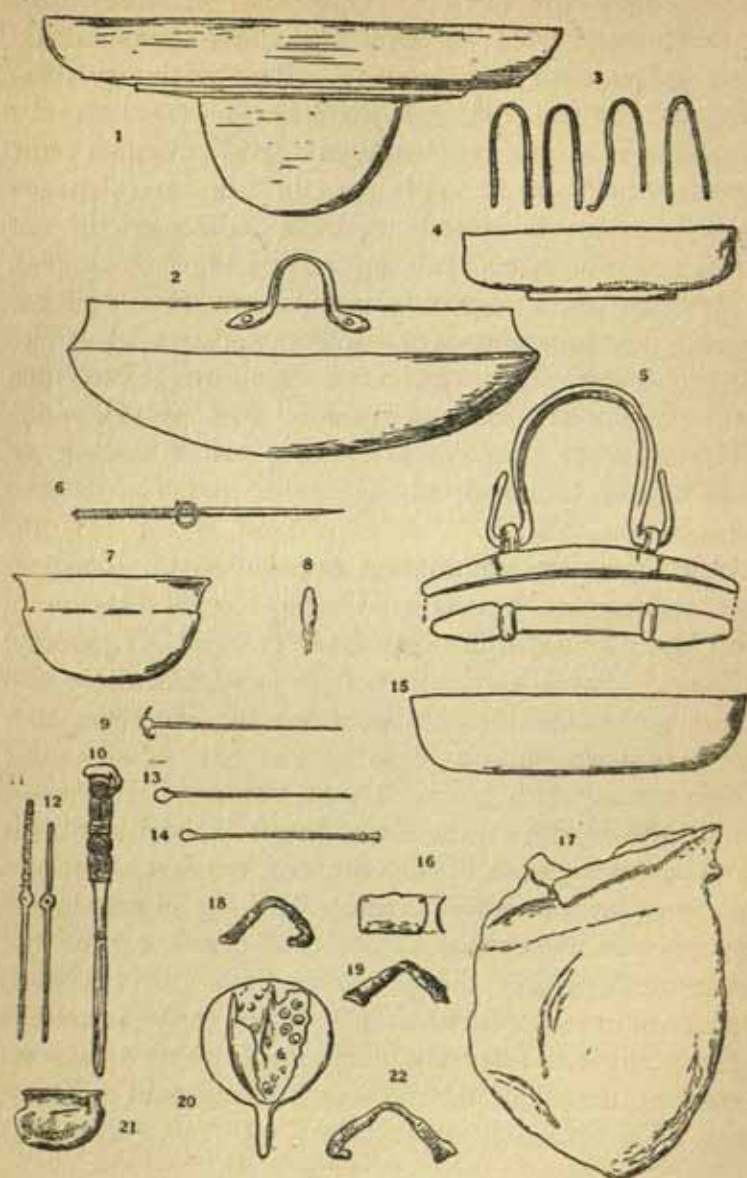


FIG. 51.



square-shanked pin reproduced in (10) is an exceptionally fine specimen. The handle is elaborately ornamented with two groups of spirals separated by raised ridges, and at the side, just below the flat and expanding head, there is a loop.

Fibulae [cf. Fig. 51 (18), (19), (22)], again, were generally made of bronze.<sup>1</sup> They are rare in the earlier periods, but become very common in the Fourth Semitic Period. In the earlier examples the bow and pin of the fibula were separate pieces, one end being perforated for the reception of the pin and the other end bent into a hook to secure the same. The pin must have had a knob at the end, while sometimes a knob takes the place of a hook at the point end of the bow.

In the Fourth Semitic Period was introduced the device of making the pin one with the bow, to which it was connected by means of a spring. In the case of fibulae of this kind the bow is most commonly thickened at both ends [cf. (22)], but in some cases the thickening is only at one end, while in others the bow is uniform in diameter between the two ends. An interesting specimen was discovered by Professor Macalister<sup>2</sup> at Gezer, in which the bow of the fibula is iron and the pin bronze. In (18) we have a bronze fibula with an angular back. The specimen here illustrated was found in one of the tombs at Bethshemesh.<sup>3</sup>

Mirrors form another class of toilet requisites usually made of bronze. They are either plain<sup>4</sup> on the reverse or else decorated. The one here illustrated (20) is

<sup>1</sup> Cf. *Gezer*, ii, pp. 79-82; Bliss-Macalister, *Excavations in Palestine*, p. 149; *P. E. F. Annual*, 1912-13, pp. 59, 73.

<sup>2</sup> Cf. *ib.* ii, p. 81.

<sup>3</sup> Cf. *P. E. F. Annual*, 1912-13, p. 73.

<sup>4</sup> Cf. *ib.* i, p. 294.



somewhat corroded, but appears to be decorated with a bunch of grapes in relief on the back. Mouthplates, again, were sometimes made of bronze [cf. Fig. 51 (16)].<sup>1</sup>

A number of bronze rings, wrist-bracelets, armlets, anklets, ear-rings, chains, pendants, and other ornaments have come to light. In the earlier periods bracelets, anklets, and rings were made by bending a wire or band of metal into a circular shape, but in later times they were sometimes fashioned by cutting out a circular belt of metal from a flat plate.

Wrist-bracelets were common in all periods, but armlets were more in vogue in later times. The wire of which these articles of jewellery were made is generally circular in section and uniform in diameter [cf. Fig. 52 (1)], but sometimes it varies in section throughout its length [cf. Fig. 52 (2)]. Flat bands are also common [cf. Fig. 52 (3)], as well as bands convex outside and concave inside. The ends are either made to meet [cf. Fig. 52 (4)], overlap [cf. Fig. 52 (1), (3)], or approximate, with a more or less wide space between them [cf. Fig. 52 (5)]. Sometimes they are left open, sometimes they are secured by twisting or welding. The ends of the armlet illustrated in Fig. 52 (11) are secured by passing a wire through two holes in the expansions, twisting the same into a spiral, and coiling the ends round the arms of the wire. Sometimes the ends of the bracelet were made so as to hook into one another.

A very common mode of adding a simple finish to

<sup>1</sup> Mouthplates are rectangular or lozenge-shaped slips of metal, tied on the mouth of a corpse. The custom prevailed over countries directly affected by the Ægean civilization from Mycenæan times down to the sixth century B.C., or even later. See Myres, *Catalogue of the Cyprus Museum* (ed. 1899), p. 131, and the references there given.

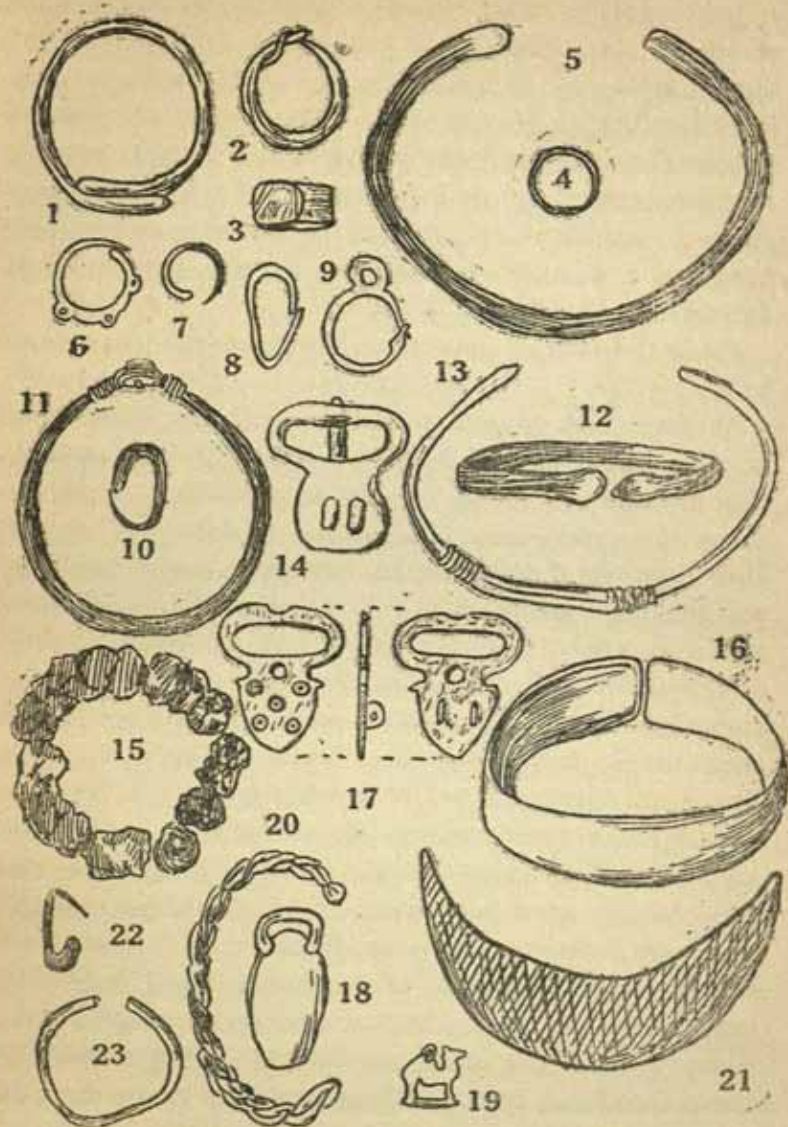


FIG. 52.



bracelets was to club or expand the two ends [cf. Fig. 52 (12)]. But bracelets and anklets of a more elaborate character also occur; thus in Fig. 52 (20) the bronze wire of which the armlet is made is very ingeniously plaited, the effect being extremely ornate. A less elaborate example is the anklet in Fig. 52 (13), the ornamentation here consisting of a piece of wire twisted round it. An interesting bronze bracelet, composed of a number of bronze beads, was discovered at Megiddo<sup>1</sup> [cf. Fig. 52 (15)].

As in the case of pins, bracelets were also sometimes bronze gilt.<sup>2</sup>

In form and general technique ordinary finger-rings do not differ essentially from bracelets and anklets. Signet-rings are found in two periods—that of Amen-hotep IV and the Hellenistic Period. They are also found in the Byzantine Period, but with the latter we are not concerned in this volume. The seals were made of various materials (cf. p. 172), and many of them assumed the form of scarabs, the rings themselves being sometimes made of bronze, while signet-rings which are bronze throughout also occur. The majority of the rings recovered are of a small size, from which it appears that their use was almost entirely confined to women. Some rings, again, are so diminutive that they cannot have been worn at all, but were probably worn on a slender chain or thread.

The commonest type of earring appears in Fig. 52 (22). The wire is clubbed at one end and tapers to a sharp point at the other, the club end being curved and the pointed end bent.<sup>3</sup> These ear-rings range from the

<sup>1</sup> Cf. Steuernagel and Schumacher, *Tell el-Mutesellim*, p. 20, Fig. 17.

<sup>2</sup> Cf. *Geser*, i, p. 294.

<sup>3</sup> For a variety of this type in which the general shape is oval rather than triangular, compare Macalister, *Geser*, iii, Plate CXXXV, 31a.



Second to the Fourth Semitic Period. In Fig. 52 (6)–(9) we have a series of bronze ear-rings from Gezer. The last is secured by a loop at the side, but the ends of the others simply approximate or overlap, the elasticity of the metal being relied upon to keep them in position.

Crescent ornaments of the type seen in Fig. 60 (15) are occasionally found in bronze, but far more frequently in silver.

The bronze crescent reproduced here [Fig. 50 (21)] is of considerable interest. It measures  $3\frac{3}{8}$  inches from tip to tip, and was evidently sewn on to a garment as a decoration, on which it remained sufficiently long for corrosion to take place, with the result that the impress of the threads remains clearly on the side of the ornament. The cloth apparently had nine threads in the warp and eleven in the woof.

Bronze buckles have also been discovered, examples of which appear in Fig. 52 (14), (17).

Pendants form another class of personal ornaments. Good examples of a typical pendant are reproduced in Figs. 52 (18), 53 (3). It consists of a shuttle-shaped weight with a bronze ring fitted to it for suspension. Pendant crosses of bronze of the type here illustrated [Fig. 53 (2)] are also sometimes found, but a large proportion of the pendants recovered are amulets, and not simply artistic decorations. Such, for example, is the hook-shaped pendant seen in Fig. 53 (1). It is made of bronze, and the figure of an angel is impressed upon it. This specimen, needless to say, belongs to a late period, as also does the bronze amulet in the form of a camel [Fig. 52 (19)], both of which were discovered in late tombs at Gezer. Some of the small bronze figures recovered are obviously Egyptian in character. Such, for example, is the little statuette

we have here [Fig. 54 (2)].<sup>1</sup> It is the figure of a man walking. His head-dress consists of a hollow cylindrical crown, and beneath his heels are two tenons to fit into mortices in a stand. His skirt reaches midway between his knees and ankles, the upper part of the body being apparently bare. The eyes are inlaid with pearls, and the remains of the gilt with which the figure was beautified are to be seen just above the waist. It is  $4\frac{1}{4}$  inches high.

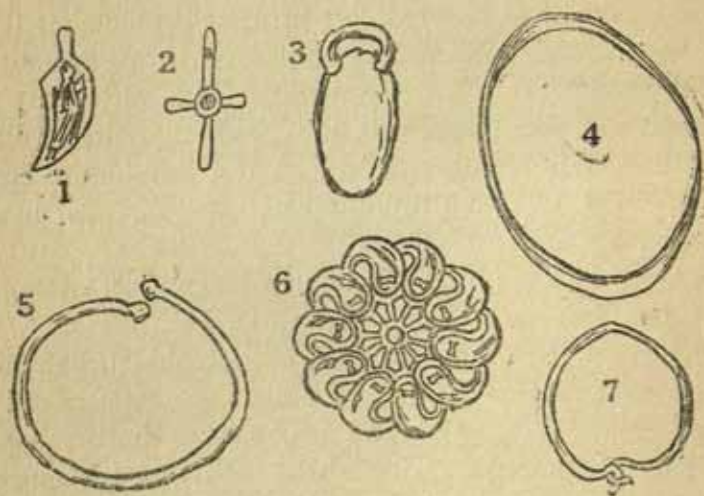


FIG. 53.

Another interesting bronze model is represented in Fig. 54 (4). It was discovered in a cave at Gezer,<sup>2</sup> and is of comparatively early date. The height of the figure is  $2\frac{1}{2}$  inches. A triple girdle encircles the waist. A horizontal tenon in front of the feet shows that it was attached to some larger object. That larger object may have been the image of a

<sup>1</sup> Cf. *Gezer*, ii, pp. 334, 335, Fig. 458.

<sup>2</sup> Cf. *ib.* i, p. 143, Fig. 46.

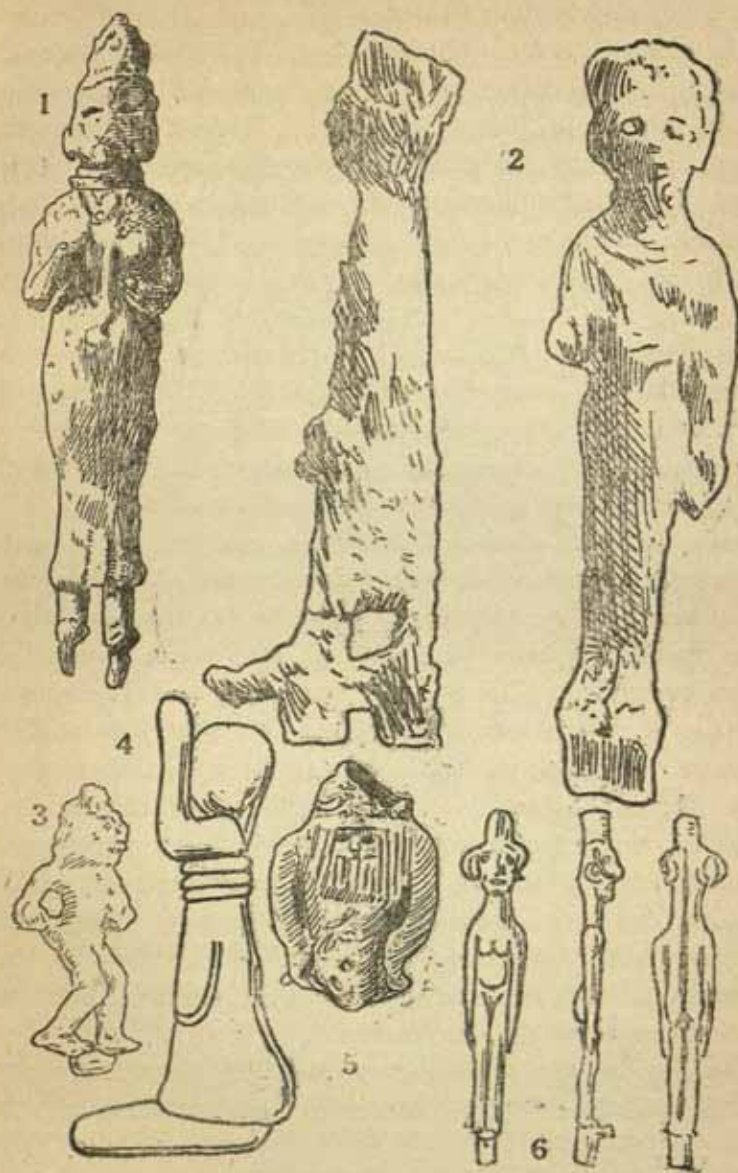


FIG. 54.



deity, and in that case the raised hands of our figure no doubt betoken adoration.

Clay would appear to have been the ordinary material used in the manufacture of idols, but some examples in bronze have also been recovered. Astarte is the deity most commonly represented, and reference is elsewhere made to the numerous terra-cotta figurines of this goddess which have been recovered. We have here, however, two bronze statuettes of Astarte [cf. Fig. 54 (1), (6)]. The one represented in figure (1) was discovered at Taanach.<sup>1</sup> Astarte is here seen swathed in a long robe, beneath which the outline of the body, and in particular the breasts, is carefully delineated. The thick and somewhat clumsily executed head wears a head-dress consisting of a conical tiara. A heavy necklace encircles the neck, and the arms and hands are pressed close to the breasts. Under the feet are two tenons, from which it is manifest that the goddess was originally fixed into some kind of a base or stand. The second figure (6) was discovered at Gezer;<sup>2</sup> the two horns form its most noteworthy feature. In contradistinction to the Taanach specimen, but like the majority of the terra-cotta Astartes, the goddess is represented in the nude. The arms are pressed firmly to the sides, the head-gear is again conical, and the horns have a downward turn, suggestive rather of a ram than a heifer. No doubt we have here a representation of the *Ashtoreth-Karnaim* ("Ashtoreth of the two horns").

In Fig. 54 (3), (5) we have two little bronze figures of the god Bes.<sup>3</sup> The former is clearly a little charm

<sup>1</sup> Cf. Sellin, *Eine Nachlese* . . ., Fig. 20.

<sup>2</sup> Cf. Macalister, *Gezer*, ii, p. 419, Fig. 504, 12, a, b, c.

<sup>3</sup> Cf. Bliss, *A Mound of Many Cities*, Fig. 80, and Sellin, *Tell Ta'anneh*, Fig. 99.



FIG. 55.



worn on the person, and suspended by a ring on the head of the figure.

Another interesting bronze representation of a goddess<sup>1</sup> is seen in Fig. 55 (2). The goddess stands upon a base supported by four human beings. The latter apparently have their busts bare, their hands crossed on their breasts, while their heads are more or less enveloped in conical head-gears with flaps covering the cheeks. The lower part of their bodies is heavily draped. The goddess above is enveloped in a kind of sheath. Three short horns project from her forehead, while her complicated head-dress recalls the feathered head-dresses sometimes seen on the figures of the Egyptian goddess Isis. The extended right arm is unfortunately broken at the elbow; the left arm, which is complete, is bent, and in her left hand the goddess holds an object of uncertain character. The figure as a whole would appear to be a Canaanite adaptation of an old Babylonian model of Ishtar seated on a throne supported by symbolic animals.

In Fig. 55 (3) we have a little bronze image of the fish-goddess Atargatis which was discovered by Bliss and Macalister at Tell Zakariya.<sup>2</sup> The upper part represents the head and bust of a woman who is pressing a child to her breast, while the lower part of the figure is the tail of a fish. A considerable number of small Egyptian idols found their way to Palestine about the time of the Eighteenth Dynasty. The god Bes is the most frequently represented, but figures of other Egyptian deities also occur, as is shown here [Fig. 55 (4)], where we have a reproduction of a bronze figurine of the god Ptah.<sup>3</sup>

<sup>1</sup> Cf. Sellin, in *Mitt. und Nachricht. des Deutsch. Pal.-Ver.*, 1900, p. 7, and Fig. 1; Vincent, *Canaan*, p. 167.

<sup>2</sup> Cf. Bliss-Macalister, *Excavations in Palestine*, pp. 148 ff.

<sup>3</sup> Cf. Bliss, *A Mound of Many Cities*, p. 67, Fig. 110.



This little bronze idol was found in a building at Lachish belonging to City Sub IV. It is about 4 inches high. A bit of thin gold plate was found still clinging to the neck, from which it seems probable that the little figure was once gold-plated all over, though it may be simply a collar.

In Fig. 55 (6) we have a bronze statuette of a man,<sup>1</sup> which is interesting in that it exhibits both Babylonian and Egyptian influence. The manner in which the legs are arranged, for example, is obviously suggestive of Egyptian art, but the attitude and type of face, so far as discernible, is more reminiscent of Babylonian art.

Animal figures are very seldom fashioned in bronze, the stag and two quadrupeds of uncertain character reproduced here [Fig. 55 (8), (9), (10)] being quite exceptional.

A more realistic figurine was discovered in a cave at Gezer, in which the animal is represented in a squatting attitude [cf. Fig. 55 (5)].

A very interesting bronze model of a cobra was found in the High Place Area at Gezer [cf. Fig. 55 (7)].<sup>2</sup> It measures 3½ inches in length, and in view of its *provenance* and the undoubted fact that some kind of serpent-cult existed in Palestine (cf. 2 *Kings* xviii, 4), Professor Macalister is probably right in regarding the object in question as a votive model.

The object represented in Fig. 55 (12), on the other hand, appears to be an ornament in the form of a serpent, and there is no reason for attributing any religious significance thereto, though of course it may have been a prophylactic.

Apart from the bronze amulet in the form of a camel referred to above, other bronze figures of camels have been found, but they belong to the Byzantine Period.

<sup>1</sup> Cf. Macalister, *Gezer*, ii, p. 344.

<sup>2</sup> Cf. *ib.* ii, p. 399.

In connection with animals, mention may be made of the bronze object illustrated in Fig. 55 (11). It has all the appearance of being a horse-bit. The same remark applies to object shown in Fig. 56.<sup>1</sup>

The musical properties of bronze were evidently appreciated, for a fair number of bronze castagnettes (?) and bells have come to light. The "castagnettes" (if they are to be interpreted in this light) consist of discs

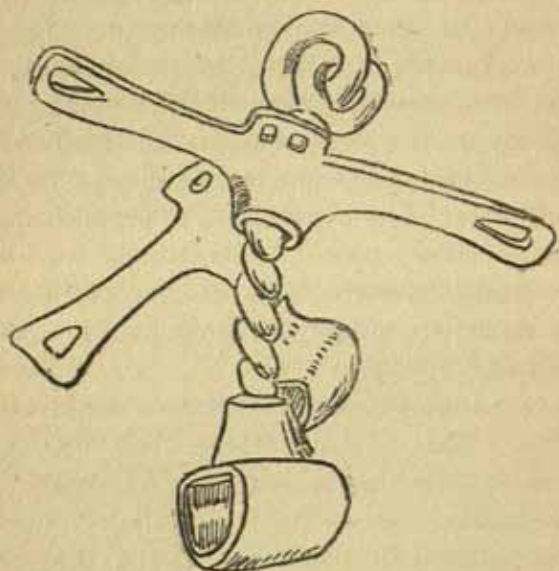


FIG. 56 (see *Gezer*, ii, Fig. 214).

perforated in the middle. They may, of course, have been buttons, but the material of which they are made rather suggests that two or more of them were strung on a thread, "to make a noise like a rattle or a pair of castagnettes"<sup>2</sup> [cf. Fig. 55 (13)].

Bronze bells of different shapes and sizes are seen in Fig. 55 (14), (15), (16). Sometimes these bronze bells

<sup>1</sup> Cf. also *Gezer*, ii, p. 13, Fig. 214.

<sup>2</sup> Cf. *ib.* i, p. 307.



have iron clappers.<sup>1</sup> They may have been horse bells (cf. *Zechariah* xiv, 20), but in view of the numbers that have been found in the later tombs, Professor Macalister is of opinion that they were rather used as personal ornaments or charms.<sup>2</sup>

Bronze chains are of fairly frequent occurrence, a good example of which is given here [Fig. 55 (17)]. The chain is passed through a bronze ring.<sup>3</sup> In like manner weights were sometimes made of bronze, but they were generally made of some kind of stone.

A limited number of bronze lamps belonging to the Hellenistic Period have also been recovered.<sup>4</sup> Of the other objects in bronze that have come to light, the pulley represented in Fig. 55 (18) is amongst the more noteworthy. The framework of the pulley consists of three sides of a square, to the horizontal side of which two rings are attached for suspension, while the vertical sides terminate in hands which hold the two pivots on which the spindle revolved.

In Fig. 55 (19) we have a simple bronze bracket handle.

### IRON.

Iron was apparently introduced towards the end of the Third Semitic or the beginning of the Fourth Semitic Period, i.e. about 1000 B.C. It is generally admitted that the introduction of its use was due to the Philistines.<sup>5</sup> It has, indeed, been maintained that the "iron" weapons of the Philistines and Canaanites referred to in these passages must have been steel,<sup>6</sup> but in view of the large number of iron weapons and implements which have

<sup>1</sup> Cf. *Genes*, i, p. 318.

<sup>2</sup> Cf. *ib.* ii, p. 115.

<sup>3</sup> Cf. also *ib.* i, p. 350.

<sup>4</sup> Cf. *ib.* iii, Plate XCIX, No. 1.

<sup>5</sup> Cf. 1 *Samuel* xiii, 19-22; *Joshua* xvii, 16-18; *Judges* i, 19, iv, 3.

<sup>6</sup> Cf. W. Belck in *Zeitschrift für Ethnologie*, xlii (1910), pp. 15-30.



actually come to light, and the corresponding absence of the steel weapons presumed, this proposition has little to commend it.

Bronze did not go out of use with the introduction of iron, but there seems to have been a tendency to use it rather for domestic and ornamental purposes, and to employ iron for agricultural implements, and other objects best served by the harder metal. Hitherto, where a greater resisting power than that afforded by bronze was required, flint had been used, and it was not till iron came into general use that flint was finally abandoned for such purposes. The two wedge-shaped lumps of iron found at the bottom of the sloping part of the water-passage at Gezer<sup>1</sup> are the oldest examples of the use of iron in Palestine. The water-passage was sealed some four or five hundred years before the use of iron became general, but no doubt they are simply stray pieces of iron which found their way to Gezer before the date when the Iron Age proper began.

There are various objects for which both bronze and iron were used, the iron specimens being, in general, similar in shape, form, and design to those in bronze already described.

Iron spear-heads are of comparatively rare occurrence. The handle of that represented in Fig. 57 (17) was originally socketed; the socket is now, however, filled with iron rust. Of the other two, one [Fig. 57 (2)] is remarkable for its massive tang, and the other [Fig. 57 (3)] for having a prominent ridge on both sides.

In the Fourth Semitic Period flint arrow-heads almost entirely disappear, while iron arrow-heads take their place along with arrow-heads of bronze, which had long been in use and still continued to be the favourite metal

<sup>1</sup> Cf. Macalister in *P. E. F. Q. S.*, 1908, p. 101.

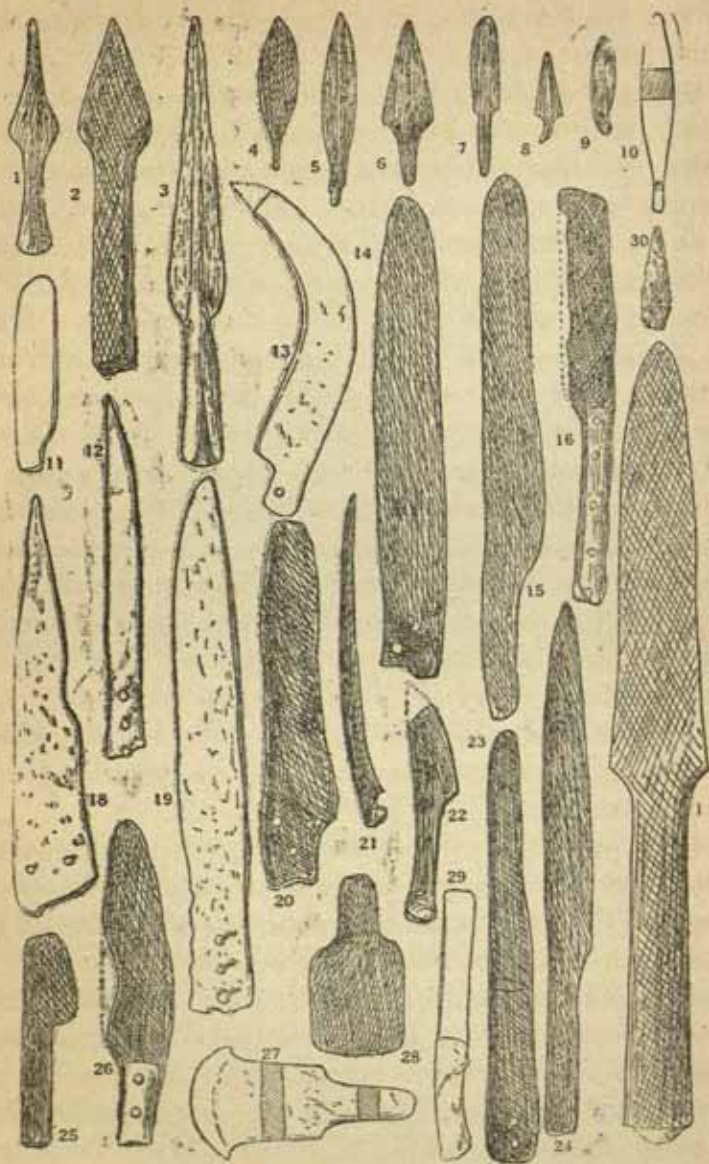


FIG. 57.



for these objects. The iron arrow-heads, in general, follow the old types, the new forms that subsequently came into vogue in the Hellenistic Period being realized in the more pliable bronze. The normal type of arrow-head, whether in iron or bronze, is exemplified in Fig. 57 (4). Other specimens in iron, which are variations of the same type, appear in Fig. 57 (5)–(10). The arrow-head illustrated in Fig. 57 (10), has a square-sectioned head and a round-sectioned tang, while Fig. 57 (8) shows a three-winged arrow-head. These are seldom found in iron. Pyramidal arrow-heads also occur. The iron swords which have been recovered resemble those in bronze already referred to. As we have seen, there are two main types, namely, that in which the hilt is of a piece with the blade, and that in which they are formed separately. A good example in iron of the former type is shown in Fig. 49 (10).

Numerous knives<sup>1</sup> have been brought to light, of which one of the earliest yet discovered is reproduced here [Fig. 57 (11)]. It is also interesting to note that iron knives were found in certain tombs at Gezer which have been assigned on independent grounds to the Philistines.<sup>2</sup>

Other examples of iron knives appear in Fig. 57 (18)–(24). In the majority of the specimens recovered the back of the tang is a continuation of the back of the blade, and in the same straight line therewith. In Fig. 57 (13) we see the blade of a knife, bent backwards. Its present length is  $6\frac{1}{2}$  inches. The specimen illustrated in Fig. 57 (16) is interesting in that the hafting-plates still remain. This and the one reproduced in Fig. 57 (23) are both Fourth Semitic. It will be noticed that the tang of one of these knives [Fig. 57 (21)] is curved so as to fit on to the finger (cf. p. 186). In

<sup>1</sup> Cf. *Gezer*, ii, p. 271, etc.

<sup>2</sup> *Ib.* i, p. 299.



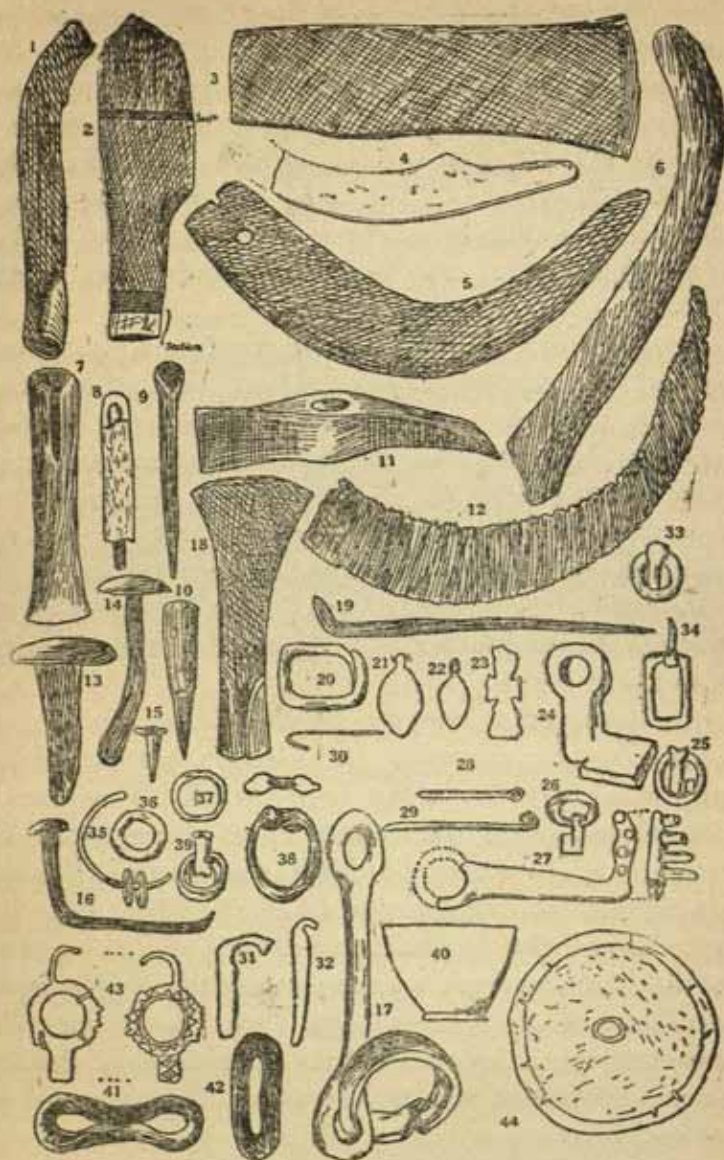


FIG. 58.

Fig. 58 (1) a curved socketed knife is shown; the edge is on the concave side. In the case of tanged knives, the rivet-holes are usually arranged in a straight line, but this was not invariable, as appears from the specimen shown in Fig. 57 (20). In Fig. 57 (29) is shown an iron knife with the wooden haft, actually preserved. It was not riveted to the haft, and presumably must have been fixed in by some kind of cement. Last [Fig. 57 (18) (12)] we have two knives with pointed blades.

Very few iron axe-heads have been brought to light. An early Fourth Semitic example is shown in Fig. 58 (3). For the most part these tanged implements resemble choppers rather than axe-heads, in the generally accepted sense of the term. Three further specimens are shown in Fig. 57 (27), (28), and Fig. 58 (2), the first of which is more or less axe-like, but the other two are clearly of the chopper type. Iron choppers of this description were apparently introduced at the beginning of the Iron Age.<sup>1</sup>

As remarked previously, bronze sickles are of comparatively rare occurrence in Palestine, but iron sickles are much more frequently encountered. They vary in breadth and also in the manner in which the handle was attached. The average breadth is about 1 to 1½ inches. Sometimes they were tanged as in Fig. 58 (4), (6). The latter shows the beginning of a tang, set at an angle to the blade—a very uncommon feature. The specimens shown in Fig. 58 (5), (12) have rivet-holes, and their handles must have consisted of hafting-plates. Socketed sickles also occur, but they are not so common.

The specimen from Megiddo<sup>2</sup> shown in Fig. 59

<sup>1</sup> Cf. *Gezer*, ii, p. 243.

<sup>2</sup> Cf. Steuernagel and Shumacher, *Tell el-Mutesellim*, Fig. 27.



is of particular interest in that it retains its ornamented bone handle.

Hatchets<sup>1</sup> first make their appearance in the Hellenistic Period. A fine specimen from Gezer is shown in Fig. 58 (11).

A number of iron chisels, both tanged and socketed, have been brought to light [cf. Fig. 58 (7), (9), (18)]. Awls [Fig. 58 (8), (10)] were generally made of bronze, but specimens in iron have also been found in the later strata. The former of the two awls here shown has an ornamented handle.

In later times nails were made of iron as well as

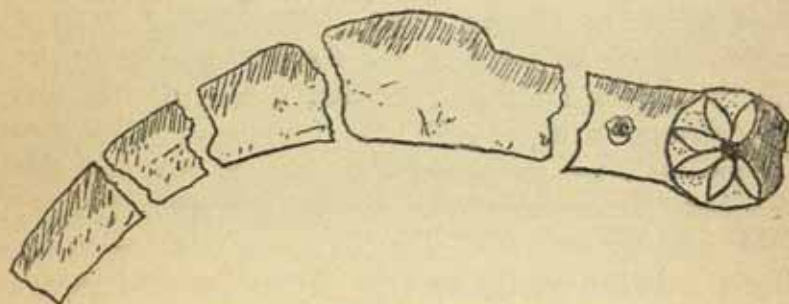


FIG. 59 (see *Tell el-Mutesellim*, Plate 27).

bronze, iron being used for the larger and more clumsy nails, while the smaller nails continued to be made of the earlier metal, the small iron nail in Fig. 58 (15) being quite unusual. As in the case of the bronze nails, the square-sectioned shank is the commonest, the round-sectioned shank being only found in the clumsiest specimens [cf. Fig. 58 (13)]. The heads of the nails show great variety. The low dome-shaped type illustrated in Fig. 58 (13), (14), is the commonest, but polygonal heads and hook-heads [cf. Fig. 58 (19)] are of fairly frequent occurrence.

<sup>1</sup> Cf. *Gezer*, ii, p. 244.

Iron was not extensively used for personal ornaments, and those that have been recovered resemble their bronze counterparts and call for little comment. Iron bracelets and what at first sight appear to be finger-rings were found in the late periods, but as a rule these rings were probably parts of implements rather than articles of adornment.

There are, however, exceptions to this generalization, as is shown by the specimen illustrated in Fig. 58 (39). Here the ring is fastened by corrosion to the finger-bone, which proves with sufficient clearness that the ring in question is not a part of an implement, but a finger-ring. The same fact is attested by the various iron signet-rings which have been found.<sup>1</sup> The bracelets and anklets call for no comment, but the one reproduced in Fig. 58 (35) is interesting in that it has two bronze discs strung on it.

Pendants were also sometimes made of iron, as will be seen by the two specimens shown in Fig. 58 (21), (22). They are flat, oval discs with a ring for suspension at the top. In the next figure (23) we have an iron cross. Buckles again were sometimes made of iron, as appears from the two examples given in Fig. 58 (33), (34).

Iron pins are more or less confined to the Hellenistic Period. They follow the same general types as the simpler bronze pins. Two specimens of iron pins are shown in Fig. 58 (28), (29).

Iron keys appear in the Hellenistic Period. The specimen illustrated in Fig. 58 (27) has four pins to open a lock with corresponding tumblers.<sup>2</sup> Three other iron keys are reproduced in Fig. 58 (24), (25), (26), the last two of which are on rings.

Many miscellaneous objects in iron have been brought

<sup>1</sup> Cf. *Geser*, i, pp. 311, 342; ii, p. 100, etc.

<sup>2</sup> Cf. also *ib.* i, p. 187, Fig. 75.



to light. Thus Fig. 58 (40) shows a restoration of an iron bowl (the original being in fragments). Portions of iron chain-mail have also been discovered, while hooks [cf. Fig. 58 (30), (31), (32)], spatulæ, and weights have also been brought to light. The curious object reproduced in Fig. 58 (17) is perhaps part of a horse's bit.

#### LEAD.

Lead was never used extensively in Palestine, and the principal objects in lead belong to the Hellenistic Period. Probably the earliest example of its use is afforded by the small ring discovered by Professor Macalister in the Third Semitic stratum at Gezer.<sup>1</sup> It was used for weights, and also for sling-bullets, while it was frequently found in gate-sockets. Of the various leaden objects that have been brought to light, the ornamented buckle reproduced in Fig. 58 (43) is perhaps the most noteworthy. In Fig. 58 (44) we have a perforated circular disc ( $4\frac{1}{4}$  inches in diameter) also made of lead.

#### GOLD AND SILVER.

Gold was known and used from the earliest Semitic periods. That but few objects in gold have been brought to light is not surprising in view of the proverbial avidity of the Oriental, whether ancient or modern. The precious metal reached the goldsmith in the form of ingots. Various methods were adopted with a view to realizing to the full the ornamental possibilities of both gold and silver. The former metal was sometimes beaten out into leaf and ornamented in repoussé; on other occasions it was melted in stone or porcelain crucibles and run into a hard stone mould in which the matrices of the required objects had been

<sup>1</sup> Cf. *Gezer*, ii, p. 265.

carefully prepared. The goldsmiths had further acquired the art of drawing it out as wire.

The armlet reproduced in *Geser*, iii, Pl. xxxi, 1, exhibits the first process—beating into leaf and ornamenting in repoussé. The hawk's head [Fig. 60 (9)] is modelled in thick gold leaf. It was discovered in a Third Semitic stratum. Gold leaf, again, was frequently applied to objects made of other materials, such as bronze and bone, as we have already seen.<sup>1</sup>

The three ear-rings illustrated in Fig. 60 (1), (2), (3) are examples of three different technical processes. The first specimen consists of drawn gold wire, the second is a thin gold tube decorated with ridges, while the third is a plait of thin gold wire.<sup>2</sup> Three more gold ear-rings are shown in Fig. 60 (4), (5), (6), together with a gold pendant of a very ordinary type [cf. Fig. 60 (7)]. The ear-ring reproduced in Fig. 60 (6) is a specimen of the normal type of ear-ring, which consists of a wire with a thick club at one end and drawn out to a sharp point at the other. They are, however, more often triangular than oval, as here. In Fig. 60 (10) we have a gold finger-ring, while in Fig. 60 (8) a flower of five petals in gold, apparently intended for sewing on to a garment, is shown. Sometimes, again, beads were made of gold [cf. Fig. 60 (11)], as well as other small ornaments, of which specimens appear in Fig. 60 (21), (22).

The silversmith was apparently mainly occupied with the manufacture of ear-rings, bracelets, anklets, pendant crescents, or hairpins with eye cast on the shank. They are mostly of very ordinary types, as may be seen from the specimens illustrated in Fig. 60 (12), (13), (20), (19), etc. The bracelet in Fig. 60 (14) is made of fine silver wire, the ends of which are interlaced. A lozenge-shaped silver bead is strung on the wire. The example

<sup>1</sup> Cf. *supra*, p. 189 and Fig. 51 (6).

<sup>2</sup> Cf. *Geser*, ii, p. 261.



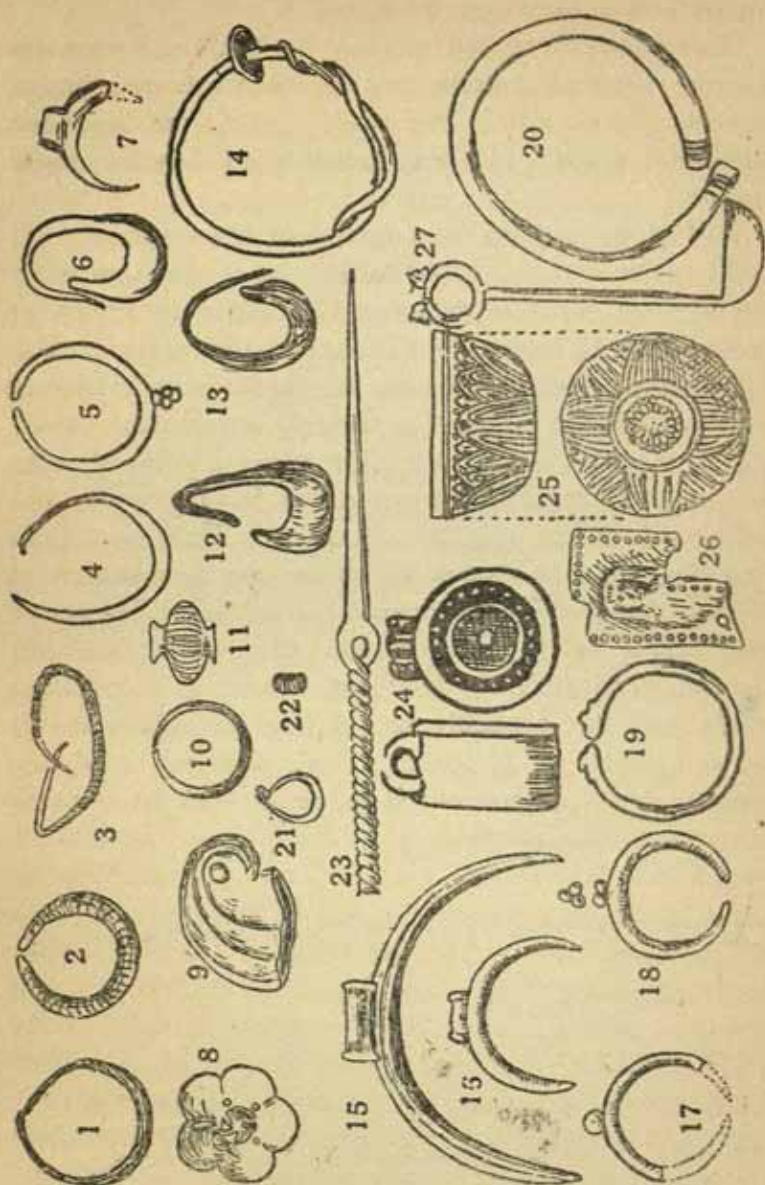


FIG. 60.

reproduced in Fig. 60 (20) consists of a bent bar ornamented with lines cut at the ends.

The anklet here shown [Fig. 60 (19)] affords some variety, the ends terminating in the heads of animals, but, like the objects in Fig. 60 (25), (27), was found in a Philistine grave, and was possibly of foreign manufacture.

In Fig. 60 (24) we have a pendent silver amulet.

The little disc in Fig. 60 (26) is one of the most interesting little silver objects yet discovered in Palestine. It measures  $1\frac{1}{4}$  inches by 1 inch, and the upper part of a woman, having a veil over her head, is fashioned in repoussé upon it. It was apparently attached for decoration to some object. Two other silver objects of more than usual interest are shown in Fig. 60 (25), (27). The ladle is  $8\frac{1}{4}$  inches long, the rectangular shaft terminates in a ring, upon the top of which are two representations of lions' heads. The silver bowl [Fig. 60 (25)] is one of the *chefs-d'œuvre* of Palestinian silver-ware, but, like the ladle and the little disc, it was found in a Philistine grave, and was probably not of local manufacture. It has a diameter of  $4\frac{3}{8}$  inches. The sides are decorated with a lotus pattern raised in relief, the base being adorned with a rosette.



## CHAPTER VI

### POTTERY<sup>1</sup>

#### THE PRE-SEMITIC PERIOD

THE pottery of the Pre-Semitic Period (i.e. before 2000 B.C.) betrays no foreign influence, and is strictly indigenous. The clay ordinarily used in the manufacture of this native ware is a limestone earth of a gritty and flinty character, the colour of which is generally drab with a reddish hue. Other clays, however, were also utilized at this period. Some of the vessels recovered are made of clay consisting of a soft limestone gravel but devoid of flint, while the clay from which others have been manufactured is full of quartz grit. Those made from the latter material are by comparison hard and durable, while those made from the former are very friable and porous.

Even at this remote age the pottery assumes many different shapes and sizes. The size is, of course, determined by the object which the vessel was destined to serve, and therefore throws little light on

<sup>1</sup> The majority of the vessels here shown were found at Gezer. Reference should be made to Professor Macalister's extremely full and exhaustive treatment of the pottery at Gezer in *The Excavation of Gezer*, vol. ii, pp. 138-231, and the plates in vol. iii corresponding thereto. Footnote references on each occasion would be out of the question.

the development of the potter's art; but the shape, though to a limited extent the result of the same determining factor, is nevertheless a reliable criterion in our estimate of the development of ceramic art in Palestine.

The vessels recovered may be divided into four main groups—i.e. jars, jugs, bowls, and saucers, and examples of all four classes have been found in each of the five periods under consideration.

In the Pre-Semitic Period the vessels are generally not well baked, while some are apparently simply sun-dried, and all are hand-made. The potter often, however, availed himself of the use of a flint implement for paring off the edges and smoothing the surface. The colour of the vessels is determined in part by the actual colour of the clay utilized, in part by the extent to which they have been fired in the oven or baked in the sun. Thus it is that some specimens are red, others black or grey-black.

The jars, of which a good specimen is seen in Fig. 61 (1), and a miniature specimen in Fig. 61 (11), are, as a rule, of moderate size, with flat or slightly rounded bases, in contrast to the pointed or rounded bottoms of later times, concave<sup>1</sup> neck, and two small loop handles on the sides (cf. Macalister, *Gezer*, ii, Fig. 302, and the similar-shaped jar from Jericho shown here [Fig. 61 (11)]). The bodies of these jars vary considerably, some being globular, while others are cylindrical or conical. Some jars have four loop handles,<sup>2</sup> but in many cases ledge handles<sup>3</sup> take the place of loop

<sup>1</sup> A "concave" neck and a "convex" neck are in shape like a pair of brackets, thus: )( and () respectively.

<sup>2</sup> "Loop handles"—handles similar to those attached to milk-jugs, teapots, etc. They persist throughout all the periods.

<sup>3</sup> "Ledge handles"—ledges projecting from the sides of the vessel. For the smaller vessels handles were not needed, but those of larger



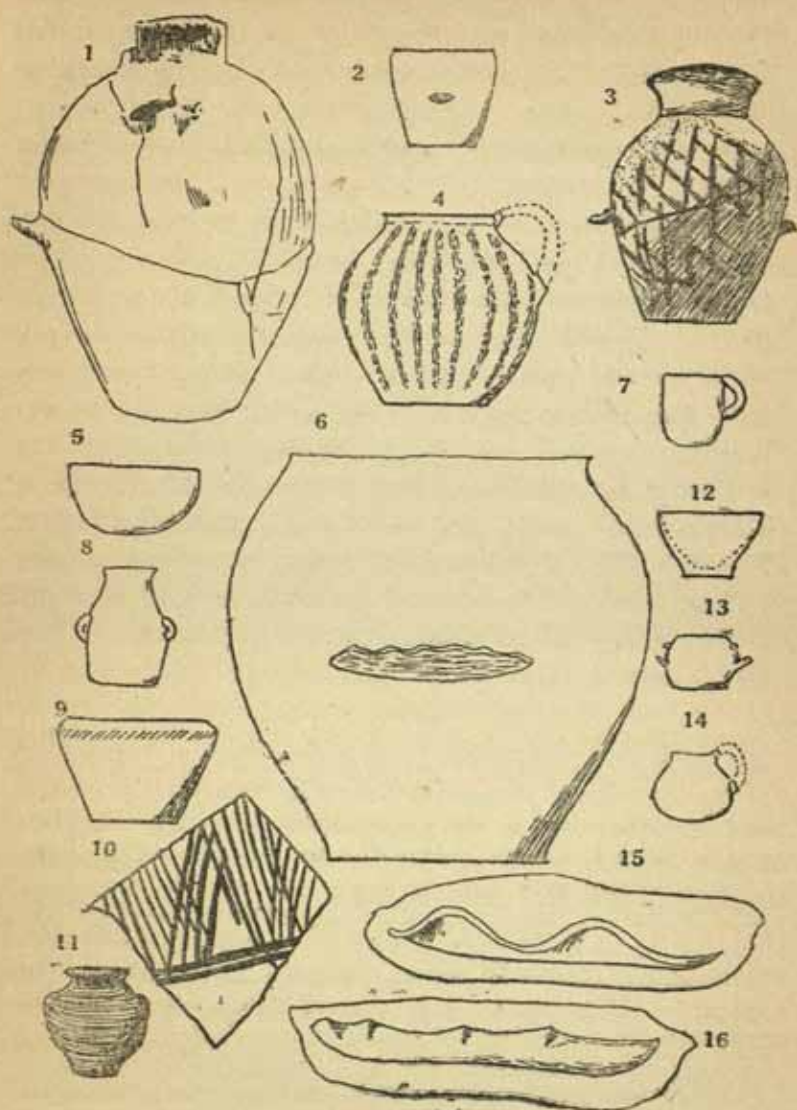


FIG. 61.

handles, while again others have no handles at all. The bases are generally flat, but are sometimes slightly rounded. The jugs of the period show four main types. One very common type of jug has a flat or rounded base, a globular body, a short straight neck, a circular mouth, and one loop handle [cf. Fig. 61 (14)].

Another type of jug has a rounded base, a cylindrical body, and one loop handle [cf. Fig. 61 (7)]. Other jugs have flat bases, globular bodies, and no neck. The handles of this type of jug show great variety; and some jugs of this class are provided with several handles. Thus, the jug in (13) has two loop handles and two ledge handles.

Lastly, we find jugs with a slightly globular body, a cylindrical neck, and two small loop handles [cf. Fig. 61 (8)].

The bowls of the period are shallow, and have flat bases and straight sides expanding upwards. They are of comparatively rare occurrence.

dimensions could not be easily carried without handles of some description. The origin of the earliest handles was doubtless due to the effect of the pressure of the potter's thumb upon the moist clay, which resulted in the projection of the part or parts upon which the pressure was exercised, from the sides of the vessel. These projecting parts, after the vessel was baked in the oven or dried in the sun, were rendered as permanent in shape and character as the vessel of which they formed a part. The next step in the evolution of handles would appear to have consisted in the application of the thumb to the lower surface of the clay thus expressed. But this type of handle did not suffice for the larger jars, and the various other handles invented subsequently, for the most part owe their origin to this insufficiency. Ledge handles are found in this and the succeeding period, but disappear almost entirely in the Second Semitic Period. They occur on vessels of all sizes, and vary in length from about half an inch to ten inches. The surface of the ledge is in most cases bent in a series of waves [cf. Fig. 61 (15), (16)].



There are two main types of saucer. One has a rounded base and rounded sides [cf. Fig. 61 (5)]. The other has a flat base and ogee-shaped sides [cf. Fig. 61 (12)]. This type is rare.

A common form of ornament at this early date consists of a series of lines. These are incised or rather scratched on the vessel by means of a wooden comb, a pointed flint, or a finely serrated flint saw. This form of decoration, which is peculiarly characteristic of the indigenous pottery in Palestine, is of frequent occurrence in the Pre-Semitic Period, but is even more common in the First Semitic Period, when it is carried out with greater care and precision. The lines thus incised are in the closest and most regular proximity to each other, and assume various designs and combinations.<sup>1</sup>

Occasionally the pottery is burnished. This process consists in rubbing the vessel with a smooth bone or stone, and has the result of producing lines which have a glazed or shining appearance after firing. Sometimes the burnishing tool was applied directly to the surface of the vessel, sometimes the surface was first covered with red, yellow, or black wash.

At the earliest period the only forms of coloured decoration consisted in a dark brick-red band round the rim, or lines of the same colour drawn vertically down the face of the vase [Fig. 61 (4)]. Later on a fret pattern occurs, as seen in Fig. 61 (3). The colour is still red, but the shades vary, the commonest shade being dark brick-red.

Flat stone palettes on which the colour was mixed have been found in the caves of the Troglodytes. Some of the vessels received a wash<sup>2</sup> of white lime-

<sup>1</sup> Cf. Vincent, *Canaan*, p. 308.

<sup>2</sup> The difference in meaning between the technical terms "*slip*" and

cream after firing; this wash adhered to the surface of the pottery except where it was already occupied with red paint, the red paint standing out against the white background.

*Moulded and incised* ornament is the commonest type of decoration in the earliest times. It consists of bands raised in relief around the necks or bodies of the vessels. These bands are an imitation of the cords with which the primitive pots were encircled, either to prevent them collapsing during the process of baking in the sun or oven, or else to facilitate their carriage from one place to another. They are incised with lines to represent the plaited or twisted appearance of a cord.

#### THE FIRST SEMITIC PERIOD.

This period saw the introduction of the potter's wheel and the far-reaching consequences which its first appearance always entails. Foreign influence, if there was any, has left no certain mark on the pottery of the time, which continues to be the natural expression of Palestinian workmanship. The wheel was used in the vast majority of cases. It was worked with the hand, the potter rotating it with his left hand and manipulating the clay with his right.

In the preceding period limestone clays were used, but about this time sandstone clays came into vogue. As before, the predominating colour of the clays used is drab, but a clay of a Venetian red colour is also of frequent occurrence. The last-named is porous, and, as a rule, not well baked.

Another sandstone clay in use at this time is of a pale "*wash*" is this: a "*slip*" is applied *before* the vessel is fired, and is consequently permanent, whereas a "*wash*" is applied after the process of firing, and is easily removed in water.



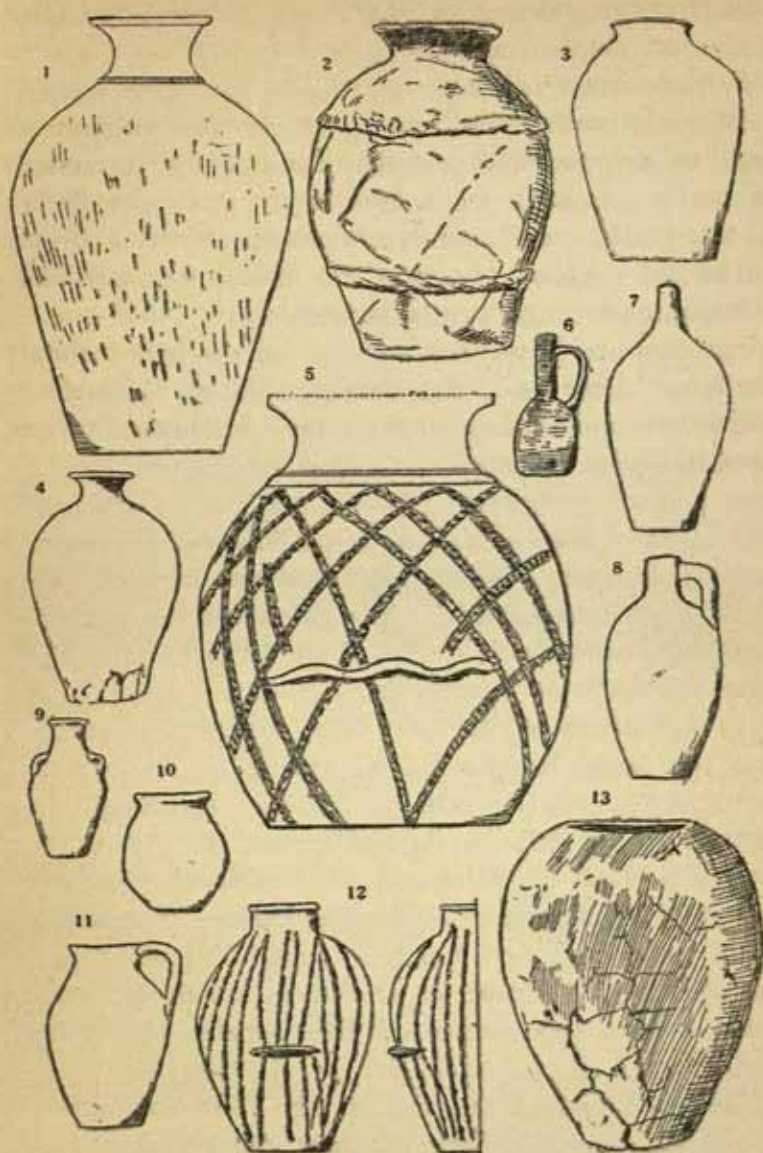


FIG. 62.

cream colour. The so-called "porridge-like" ware, so characteristic of the Pre-Semitic age, is still found, but it is not so coarse and gritty.

Perhaps the finest type of ware of this time is that known as "cream ware," owing to the fact that vessels made of this material are also covered with a cream slip. The vessels themselves are of a distinctive character, and were presumably made for the wealthy.

Another superior ware of a fine clay is Venetian red in colour, and always highly burnished.

The jars are large, the average height being about two feet. They have flat bases, as in the preceding period, inverted conical bodies, rounded shoulders, short concave necks, with wide circular mouths, surrounded by a projecting lip [cf. Fig. 62 (1)]. The jar from Tell es-Şâfi [Fig. 62 (4)] is a particularly fine specimen. It is 2 feet 9 inches high, and was covered over with a fragment of a dish. As a rule there are bands of moulding round the body [cf. Fig. 62 (2)]. Many of these jars have no handles [cf. Fig. 62 (1), (2), (3), (4), (13)], but those which are thus provided generally have two ledge handles [cf. Fig. 62 (5)]. The vessels shown in (5) and (12) are particularly interesting; the latter shows the drip-line decoration, and the former the fret design, both of which occur in Pre-Semitic pottery. In some cases loop or pillar handles occur. Sometimes jars of this period were found to contain infants' bones, and thus served either as primitive sarcophagi, ossuaries, or else repositories of the remains of human sacrifices.

There are several varieties of jug. The commonest type of jug, generally has a flat base (though sometimes the base is round), an inverted conical or globular body, a short but wide neck, a continuous mouth, and a single loop handle [cf. Fig. 62 (11)]. Their height is



from  $3\frac{3}{4}$  to 6 inches. There is a smaller jug of the same type, which, however, has a longer neck and two ear handles.<sup>1</sup> Sometimes the neck is prolonged and cylindrical [cf. Fig. 62 (8), (9)] instead of short and wide, but jugs of this kind are more uncommon. Some of the jugs of the period have two loop handles instead of one; others have two ledge handles [cf. Fig. 64 (2)], while others have no handle at all [cf. Fig. 62 (10)]. A further variety is shown in *Gezer*, iii, Pl. CXLVII (7); this jug is in red ware, and has a well-rounded globular body, a rounded base, and two ledge handles.

Another type of jug of this period is characterized by a comparatively very long cylindrical neck. Jugs of this kind have a flat base, a more or less cylindrical body, and a single loop handle. They are sometimes burnished with horizontal lines [cf. Fig. 62 (6)]. Occasionally they are not provided with a handle [cf. Fig. 62 (7)]. From the similarity of these jugs to a type very prevalent in the Second Semitic Period, one may probably assume that they date from the latter part of the First Semitic Age.

Another class of jug has a globular body contracting to a cylindrical neck and provided as a rule with two small ear handles, though sometimes with four [cf. Fig. 63 (4)], while occasionally a loop handle takes the place of ear handles [cf. Fig. 63 (1)]. Jugs of this description are often in the cream ware and ornamented with red painted patterns [cf. Fig. 63 (4)].

Another type of jug is shown in Fig. 63 (3). These jugs have a cylindrical body with slight entasis and no neck. As in the preceding groups, their bases are flat.

<sup>1</sup> "Ear handles," as compared with "loop handles," are of small size, the handles themselves being very much thicker, in proportion to the space enclosed, than is the case with loop handles.

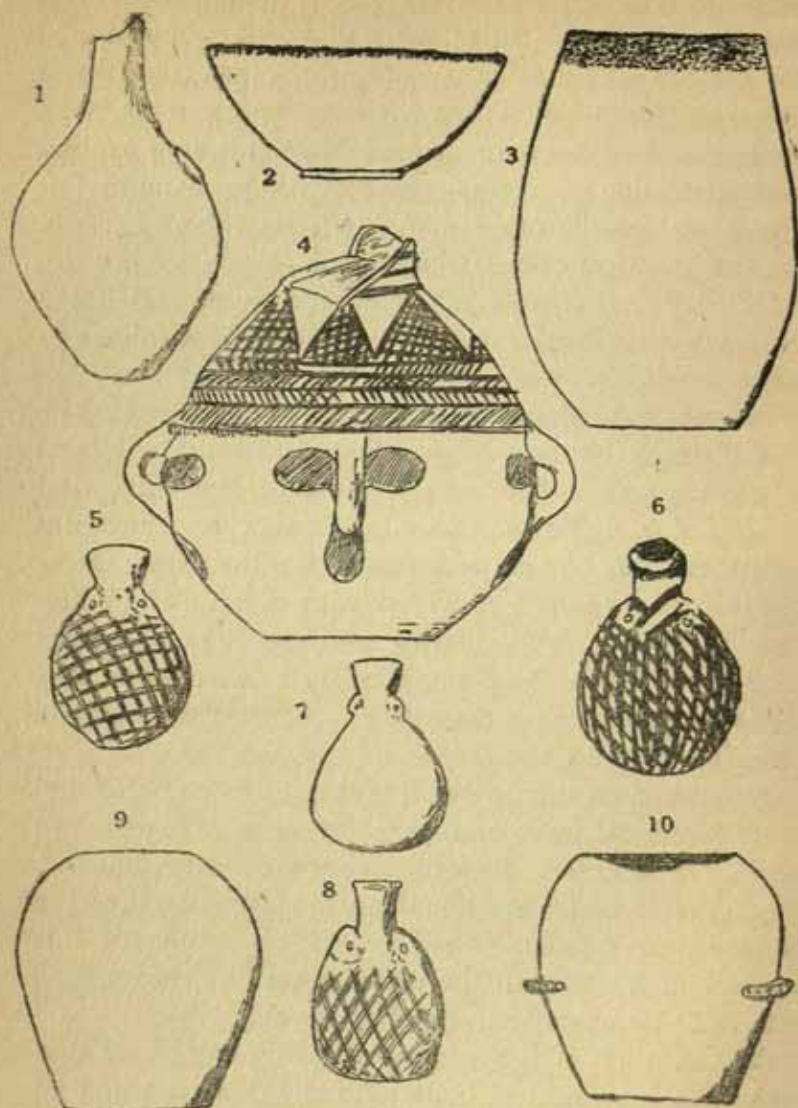


FIG. 63.



A further style of jug used during the First Semitic Period is characterized by a spherical body, two ledge handles, an absence of neck, and a lateral spout [cf. Fig. 64 (1)].<sup>1</sup> Jugs of this description are frequently decorated with reddish-brown lines.

The bowls of the time have flat bases like the jugs and jars; their bodies are usually globular in form and curve inwards at the top [cf. Fig. 63 (9)], while the

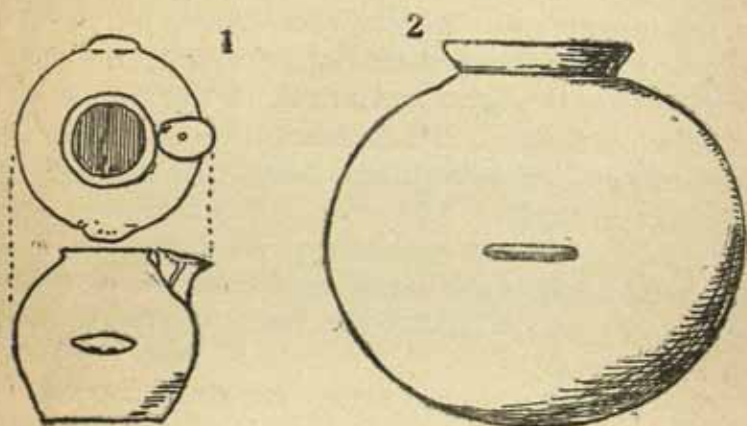


FIG. 64.

circular mouths are wide and have neither neck nor lip; the surface is often decorated with combed ornament. Sometimes they are provided with spouts, *filtering*<sup>2</sup> or ordinary, while other varieties of this type have ledge handles [cf. Fig. 63 (10)]. Some bowls, again, have straight (?) sides which expand outwards [cf. Fig. 63 (2)]; occasionally these have ledge handles and drip decoration.

The ordinary hemispherical saucers of the Pre-Semitic

<sup>1</sup> Cf. Macalister, *Gazer*, ii, p. 153, Fig. 316, No. 3; Sellin-Watzinger, *Jericho*, p. 100, and Plate XXI, D4.

<sup>2</sup> A *filtering* spout is one provided with a kind of screen pierced with holes through which the liquid passed.

Period still continue in use, but are not of such frequent occurrence. Some of the hemispherical saucers of the time have a spout projecting a short distance below the rim, but this variety is only found in the fine cream ware already referred to.

Of the various other miscellaneous objects of pottery belonging to this period the following are particularly noteworthy:—

(1) Fire-trays, the use of which is betokened by the smoke marks still visible. These trays, which were apparently used for containing or carrying fire, are hand-made and very coarse and brittle. They are circular, and when complete had a diameter of about  $1\frac{1}{2}$  feet, and were about 6 inches high, the base being flat and the sides perpendicular. Under the lips a number of holes were drilled, beneath which is a raised moulded band. Below this band—itself sometimes decorated—are vertical grooves by way of further decoration [cf. the fragment in Fig. 65 (14)].

(2) Ointment-pots are among the commonest of the vessels found in the strata belonging to this period. The average height is about 3 inches; the body somewhat conical; the neck, long inverted conical [cf. Fig. 63 (7)]. At the angle where the neck expands into the body are two ear handles. These vessels are frequently decorated with a fret pattern in red paint [cf. Fig. 63 (5), (6), (8)]. The specimens (5) and (7) are from Gezer, while (6) is from Jericho.<sup>1</sup>

Various vessels and other objects in ware have been recovered, but they are more or less unique, and are in no way typical of the period.

In regard to the general details of the pottery of this

<sup>1</sup> Cf. Macalister, *Gezer*, iii, Plate CXLIII, 6, 8; Sellin-Watzinger, *Jericho*, p. 100, Fig. 83; Bliss-Macalister, *Excavations in Palestine*, Plate XXVIII, 4.



time as a whole, we note that the bases are nearly always flat—usually solid, but sometimes hollow. The commonest forms of handles are the loop handle, the ledge handle, and the ear handle. Loop handles usually take the shape of a horizontal oval, longer horizontally than vertically [cf. Fig. 65 (1)]. Ledge handles are various in shape, some being rectangular, some semi-elliptical, and others semicircular. They are sometimes pierced with holes for suspension. This is nearly always the case with ledge handles “projecting lengthways and horizontally from the rim of the bowl, like the handle of a frying-pan.”<sup>1</sup> Occasionally ledge handles are so diminutive in size that they can have been of no utilitarian value, and consequently must have been added merely by way of ornament. Fig. 65 (2) affords a good example of a *button handle*; the latter type of handle often degenerates into a mere knob, sometimes square, but usually round [cf. Fig. 65 (17)].

Another type of handle of fairly frequent occurrence is the spout handle. The form of the latter is a hollow trumpet-shaped projection from the side of the vessel.

Many of the bowls of this age have spouts. The latter are usually short and wide, and are sometimes provided with a filter, the wall of the vessel being perforated with a number of small holes and not with one large orifice.

The mouths of the vessels were no doubt generally closed with a clod of turf or clay or a stone, but specially fashioned stoppers were also in use in all periods. These were made of clay, duly moulded and baked for the purpose, or soft stone trimmed to the size of the orifice. A more elaborate type of stopper which apparently came into use in the First Semitic Period resembles a

<sup>1</sup> Macalister, *Geser*, ii, p. 144

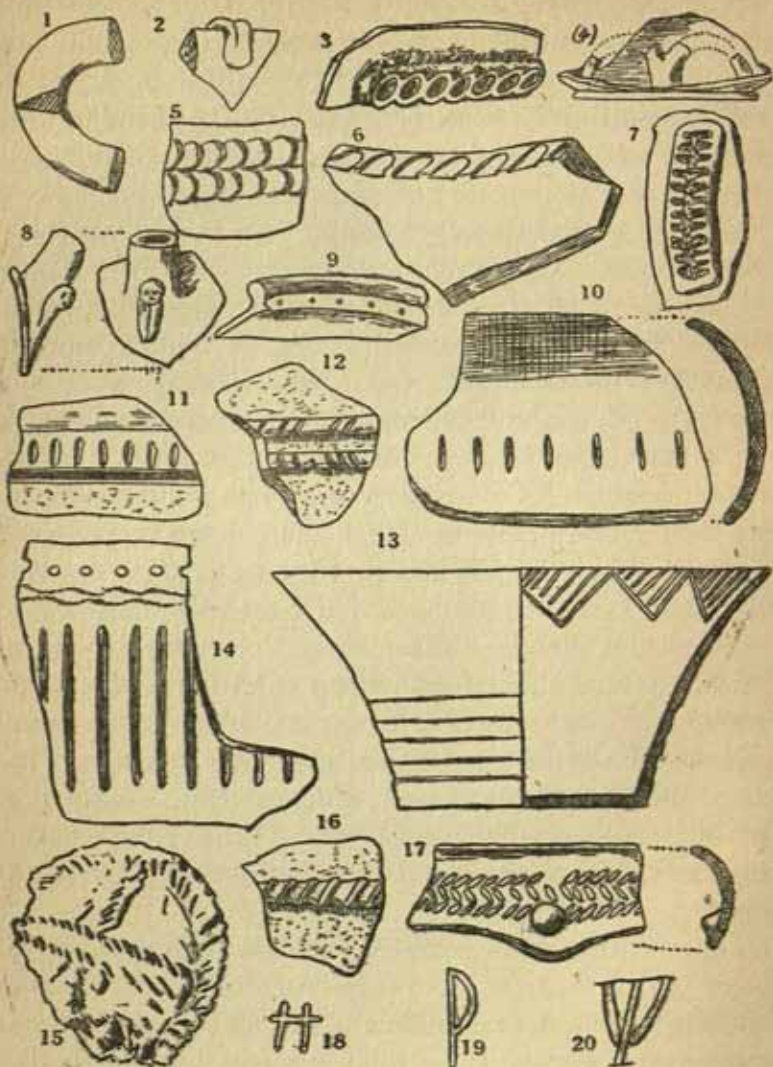


FIG. 65.



saucer, one of its diameters being occupied by two adjacent loop handles [cf. Fig. 65 (4)]. A number of oval stoppers have also been recovered, obviously made to fit oval mouths, but no jars with corresponding oval mouths have as yet been brought to light.

Various devices were employed in the decoration of pottery. The *combed* type of decoration was adopted in this as in the preceding period, and with greater success. The process consists in scratching lines on the surface of the pottery with the aid of a wooden comb.

The burnishing tool was also in requisition as in former times. In the earliest period the lines are nearly always horizontal, but later we find vertical lines, and sometimes horizontal and vertical lines are combined on the same vessel so as to form a pattern. On some of the superior pieces of pottery of this period the burnishing lines show great regularity, and in many cases are made so close to each other that the general effect given is that of a completely burnished vessel.

The old method of *moulding* an ornamental ring or pattern on the surface of the vessel itself still occurs, but in the majority of cases it has given place to a different process, the ornament being moulded separately and then affixed to the vessel which it was destined to adorn. This ornamental band is much more firmly attached and, as it were, welded to the vessel in the First Semitic Period than in the succeeding periods. As a rule, the band itself is decorated with a rope or herring-bone pattern, or series of overlapping scales [cf. Fig. 65 (5)]. Sometimes the lip of a vessel is embellished with one of these variegated bands [cf. Fig. 65 (6)]. Occasionally a moulded figure takes the place of the wavy or scaly band. Thus in Fig. 65 (8) we have a spout supported by the head, apparently, of a bird, while the handle is occasionally in the form of an

animal [cf. p. 290, Fig. 88 (2), (3)]. In some cases, again, we find a cruciform pattern moulded on the bottom of vessels [cf. Fig. 65 (15)]; but this is rare.

Another form of decoration is that consisting of incised lines and figures. In the Pre-Semitic Period various examples of this kind of ornamentation have been brought to light, but the incised lines are isolated, whereas now, though the old discontinuous patterns still survive [cf. Fig. 65 (10)], continuous incised lines largely take their place, the result effected being sometimes that of a herring-bone pattern [cf. Fig. 65 (17)], sometimes a zigzag device. The backs of loop handles frequently display this mode of decoration [cf. Fig. 65 (7)]. The incised form of decoration is not confined to the outer surfaces of vessels, and, indeed, the inside surface of the edge of cream ware bowls of the type illustrated in Fig. 63 (2) are nearly always thus ornamented [cf. Fig. 65 (13)]. Sometimes incised rings take the place of strokes, while dots and finger-marks are also used for decorative effect. One remarkable sherd has been recovered which is decorated with a row of perforated holes [cf. Fig. 65 (9)].

Colour continues to play an important part in the ornamentation of ware. The red and black *drip-lines* of the preceding period still make their appearance, but they are combined with greater elegance and regularity. Similarly the fret pattern in dark brick-red is still of common occurrence, and red zigzag lines now begin to appear.

The finely wrought cream ware pottery is often painted with one or more colours, chiefly a dark brownish-red. Sometimes the whole vessel is painted inside and outside with this colour, but more often it is applied pattern-wise. There is generally a band of this paint round the rims of bowls and saucers. The type of



colour-decoration most characteristic of the First Semitic Period, however, is that in which no less than three colours play a part: a very opaque red, dark grey, and opaque white. These are arranged as a rule alternately in horizontal bands, but frequently zigzags are added to vary the effect. Vessels of this period were very seldom burnished and coloured also; this combination did not obtain prevalence till a later date.

Potters' identification marks are frequently encountered, especially on the type of bowl represented in Fig. 63 (9). They are at this time coarsely made, and of a very simple and inornate character. They consist generally of a series of dots or straight lines arranged in various combinations, the commonest mark in this, as well as in all subsequent periods, being a roughly scratched X. Some of these potters' marks [cf. Fig. 65 (18), (19), (20)]<sup>1</sup> bear a resemblance to old Hebrew letters, but the resemblance would appear to be accidental, as the earliest known forms of the Phœnician script post-date this ware by centuries. No seals or stamps are known at this date.

## SECOND SEMITIC PERIOD.

In this period foreign influence begins to make itself felt. It is displayed on the one hand by the presence of direct importations from abroad, and on the other by native imitations of foreign ware. The original models are, needless to say, infinitely superior to the local attempts. The chief impetus came from Crete and Cyprus. Apparently no Cretan pottery older than the Late Minoan Periods has been found in the strata of this period. One of the earliest and best examples of a

<sup>1</sup> Bliss-Macalister, *Excavations in Palestine*, Plate XXIX, 25, 33, 37; Macalister, *Gezer*, ii, pp. 151, 152.

Cretan importation is the fragment represented in Fig. 66 (1). The ware of most of these foreign products is "painted in dark reddish-brown on the familiar glazed dark-buff slip."<sup>1</sup> This ware was imitated by local potters, but the local imitations are very inferior, and the disparity between the two is at once obvious. The original Cretan ware came for the most part via Cyprus, their nearest possible source. Large numbers of bowls and jugs were imported from Cyprus about this time. The bowls are hemispherical in shape, have "wish-bone" handles, and are ornamented with the familiar *ladder pattern*, the latter being carried out in black or brown on a slip of purple, yellow, or white.

The Cypriot jugs, of which large numbers have been unearthed, have an inverted conical body, a ring-base, and a cylindrical neck, which in nearly every case has become crooked in the course of firing [cf. Fig. 66 (3)-(5)]. They are always covered with a purple-grey slip, on which is usually painted a pattern of vertical lines or basket-work in white. The handles, which are pointed at the ends and flat in section, usually bear a similar pattern [cf. Fig. 66 (6)].

Similar jugs are found in Egypt, and range from about 1400 B.C. to 1000 B.C. in date.

Egyptian pottery also found its way to Palestine during the Second Semitic Period. In Fig. 66 (7) we have an example of the Egyptian vases imported at this time. They are black in colour, have a conical body, a knob at the base, a narrow concave neck, and a single loop handle. They are decorated with incised lines and dots filled with white. Various bowls and saucers of green-enamelled faience of Egyptian workmanship have also been recovered, but, unlike the vases, they do not appear to have been imitated locally. They are

<sup>1</sup> Cf. Macalister, *Gezer*, ii, p. 155.





FIG. 66.

decorated with lotus flowers or line patterns in brown.

As a whole the ware of this period shows a marked improvement on that of the preceding period, and the texture is of a much finer character. Various kinds of clay are used, and are in general characteristic of the different types of vessel for which they were respectively employed. The large vessels used for ordinary domestic purposes are generally made of a rough brown or red clay, full of fine grits of blackish flint and sand. Ornamental vessels, on the other hand, are made of more refined clays, of which there is a considerable variety. Amongst these may here be mentioned a Venetian red clay which is very compact and almost homogeneous. It is always covered with a dark-red slip and is highly burnished. A very rare type of ware, of which but a few examples have been found, is light olive-green in colour, and the sherds recovered are said to be almost as thin and compact as a piece of an ostrich-egg shell. Other ornamental vessels, perhaps of foreign origin, are made of a saffron-yellow clay and ornamented with black lines; this ware has the peculiarity of having its section the same colour as its surface. Much progress was also made in the art of fashioning the vessels; this no doubt is largely due to the introduction of the improved potter's wheel, worked with the foot. This invention—doubtless borrowed from abroad—left the potter's hands entirely free to mould and shape the clay. At first the potter used either foot, and consequently the rotation, as shown by the pottery itself, varied, but later on the left foot alone was used. During this period the use of the potter's wheel was all but universal, the only specimens of hand-made pottery recovered being small and insignificant. Occasionally a knife was used to



smooth the surface and pare off the edges [cf. Fig. 66 (8)], and wheel-made as well as hand-made vessels show traces of this treatment.

The large jars of the time show little difference from those of the previous periods. They have a long conical body, round shoulders, pointed base, short concave neck, continuous circular mouth with expanding lip, and generally two loop handles, though sometimes four, while not infrequently they have no handles at all.<sup>1</sup>

The jugs, on the other hand, show great variety. The commonest type of jug [cf. Fig. 66 (8), (15)] has a long conical body, rounded shoulders, as a rule a narrow concave neck, an oval spouted mouth, a pointed base, with or without a small disc at the end thereof, and one loop handle opposite to the spout. This general type continues through all the later periods. They range in height from 2 or 3 inches to about 1 foot. The small specimen represented in Fig. 66 (15) is closely burnished and has a very high polish.

Another type of jug of fairly common occurrence has a more or less broad conical body, a flat [cf. Fig. 66 (9)] or pointed base [cf. Fig. 66 (11)], abrupt shoulders, a long and rather narrow neck, and two handles, generally loop handles, but sometimes ear handles.

Reference has already been made to jugs of Egyptian origin found in the strata belonging to this period [see p. 232 and Fig. 66 (7)]. Probably all those with the punctured decoration are Egyptian, but the form was imitated by native potters, as may be seen from the local product illustrated in Fig. 66 (10). The inferiority of the copy to the original is at once patent.

There is another type of jug with a button or disc base, also of foreign origin. The jugs referred to have

<sup>1</sup> Cf. Macalister, *Gezer*, ii, p. 159, Fig. 320.

a globular body, a cylindrical neck, and one loop handle ; they are covered with a brownish-yellow slip, upon which lines and zigzags are painted in dark-red or black [cf. Fig. 66 (14)]. This type of ware was very common at the beginning of the Second Semitic Period.

A class of jug of an entirely different character is seen in Fig. 66 (16). These have an oval body, a hollow expanding base, a wide circular neck, a wide continuous mouth with flat expanding lip, and no handle. They are, as a rule, well made and covered with a cream slip.

Other jugs of the time have a body which gradually expands and then contracts, a flat base, generally one loop handle, a wide neck, and a spouted or rounded mouth [cf. Fig. 66 (12)].

The chief characteristics of the commonest type of bowl of this period are as follows : the lower part of the body is flat and widely expanding, the upper part being generally shaped somewhat like a pulley-wheel, and they have disc bases but no handles. They vary greatly both in size and detail,<sup>1</sup> but the general type persists throughout the subsequent periods. There is another type of bowl belonging to this time which also has a disc base ; the sides of these bowls are at first slanting and then gradually become vertical ; they have two loop handles and there is a slight moulding round the neck. The elaborate decoration which invariably embellishes the upper part of these bowls at once indicates their Mycenæan origin. The decoration is of the *metope* or panel style, each *metope* containing some device or the representation of some object [cf. Fig. 66 (19)]. The colours used are black and red. Another class of bowl is characterized by a trumpet-shaped base [cf. Fig. 66 (13)].

These pedestalled bowls or drinking-cups display

<sup>1</sup> Cf. *Gezer*, ii, p. 163.



much variety, as is demonstrated by the example shown in Fig. 73 (3), which probably belongs to this period.<sup>1</sup> This type of vase apparently has a ritual significance and is the prototype of the libation chalices of later date. In course of time the bowl tended to become smaller, at first preserving its curved contour, but at length assuming an angular shape [cf. Fig. 78 (9)].

Numerous wide shallow bowls or saucers, with or without handles and of various sizes, belong also to this period. This general type is illustrated in Fig. 66 (17), (18), (20), (22), which also afford examples of the variety in detail which these bowls show. Some of the saucers of the period are provided with long narrow spouts. Spouted saucers of this description are of yellow ware and are decorated with black lines.

Baking-trays form another series of flat saucer-shaped utensils. They vary from about 9 inches to 1 foot in diameter, and the under surface is perforated with holes. Lamps now first make their appearance. They consist of shallow saucers with a rounded base and a spout drawn out at one side. At this time the spout is not pronounced [cf. Fig. 66 (21)] and is triangular in shape.

Another class of object which was of fairly common use at this period owed its origin to the partiality for round-bottomed vessels. The latter could not stand upright without support, and stands were fashioned for the purpose. These were cylindrical and pulley-shaped, with moulded rim at the top and bottom [cf. Fig. 66 (25), (26)]. Sometimes they are perforated with holes, and as some of the stands were used to support cooking-vessels on the fire, no doubt the holes in such cases were made for the purpose of ventilation.

The bases of the jugs and jars of the Second Semitic

<sup>1</sup> Cf. *P. E. F. Annual*, 1912-13, p. 47, Plate XX, item 3, and also Plate XXI.

Period are almost always pointed, while the bases of the bowls are usually disc-shaped. Generally speaking only small vessels have flat bases. The handles are, as a rule, loop-shaped, which in the case of the smaller vessels is circular in section, and in the larger is generally flat and oval. Sometimes they are formed of two, three, or four strands. Button handles are also found, the commonest type of which is seen in Fig. 66 (24). Ledge handles are not unknown, but are very rare. Ear handles are of frequency occurrence, and are found both on jugs and bowls [cf. Fig. 67 (1)]. They show great variety, some being vertical, others horizontal. They are often ornamented with lines or nail-marks. In many cases handles are dispensed with altogether.

The mouths of vessels, if they required to be closed, were usually stopped with lumps of clay, these clay stoppers being either disc-shaped, T-shaped, or conical. A more elaborate stopper was, however, sometimes used. It is shaped like a saucer and is provided with two loop handles in the upper surface [cf. Fig. 67 (8)]. This type of jar-stopper is at all periods rare.

The commonest form of decoration is that produced by the paint-brush. The designs and colours are various. The ornamentation frequently consists of a number of rings round the vessel, the colour being usually dark-red. Occasionally the inside of the vessel is similarly decorated. Another scheme of decoration, doubtless of foreign origin, consists in a series of parallel lines, drawn with great regularity, and sometimes fret-wise, sometimes vertical. They are occasionally broken with zigzag lines [cf. Fig. 66 (14)]. Vessels thus decorated are continuously burnished, and are light-brown, yellow, or dark-red in colour.<sup>1</sup> Ware of this description is also sometimes decorated with a series of

<sup>1</sup> Cf. Macalister, *Geser*, ii, p. 172.



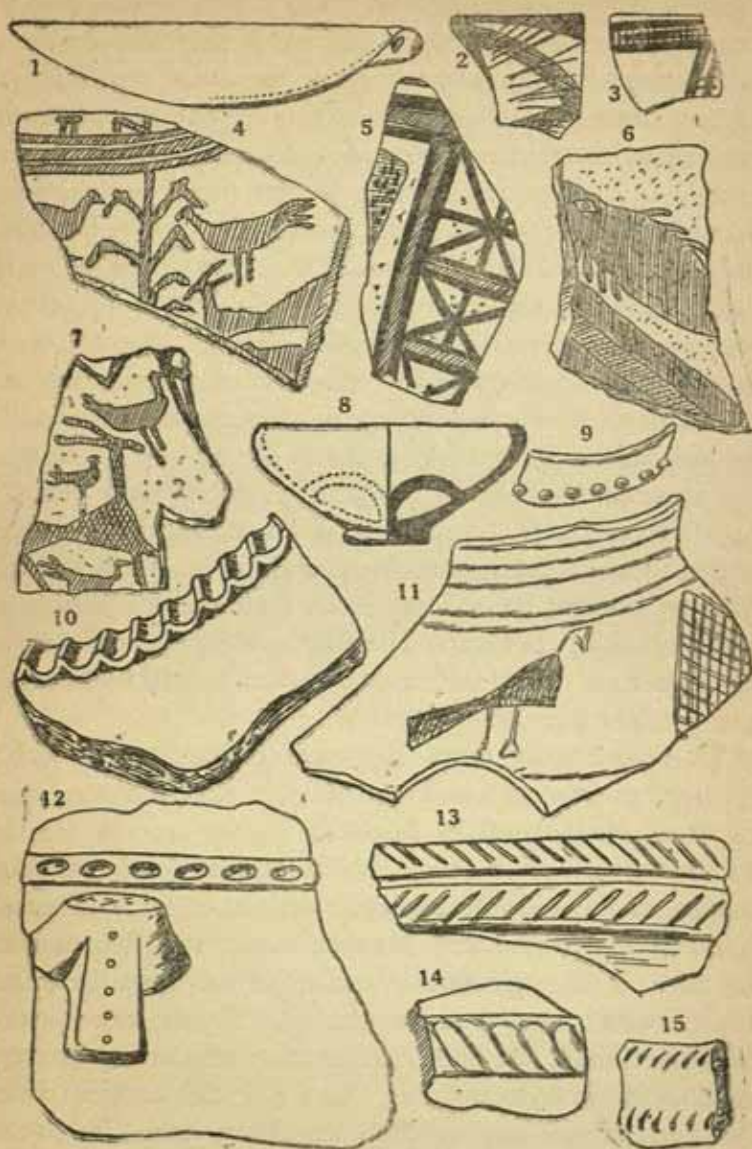


FIG. 67.

bold thick lines cut by finer lines [cf. Fig. 67 (2)]. Cypriote bowls of the period often exhibit a *ladder-like* ornament [cf. Fig. 67 (3)], the colours of the slip with which these vessels were treated, as well as the colours of the pattern, being various. The *metope* style of decoration is characteristic of the type of bowl represented in Fig. 66 (19). The *metopes* are divided from each other by zigzags, vertical lines, or a *herring-bone* pattern, and are occupied with the representation of a bird, a fish, or a geometrical device. One of the commonest geometrical patterns is a quartered square with diagonals [cf. Fig. 67 (5)]. The animals represented on the painted sherds belonging to this period are usually horned [cf. Fig. 67 (4), (7)]. Fig. 67 (6) illustrates the type of fish depicted, and Fig. 66 (19) and Fig. 67 (4), (7), (11) afford examples of the conventional birds which played their part in the decoration of Second Semitic pottery, though not such a prominent part as in the succeeding period. The edges of bowls and lamps are frequently decorated with dark brick-red bands, as in the Pre-Semitic Period.

The practice of burnishing pottery reaches its zenith during the Second Semitic Period. All the finer types of ware are treated in this way. The process known as *continuous burnishing*, which was invented by the potters of the preceding period, now reaches its highest pitch of excellence, and illustrations of its effect are to be seen in the numerous examples of burnished red vessels which have been recovered. At the close of the Second Semitic Period the practice of *continuous burnishing* fell into desuetude. As a rule the strokes of the burnishing tool are applied regularly and all in the same direction, but sometimes they are made vertically and horizontally, and the result of this "cross-burnishing" is very effective.



*Moulded* decorations, on the other hand, are not so common as in the First Semitic Period, and are not so carefully executed. The deterioration will become apparent by comparing Fig. 67 (10), of the First Semitic Period, with Fig. 67 (14) of the Second Semitic Period.

Two of the most characteristic forms of moulded ornamentation at this time are illustrated in Fig. 67 (12), (13). Fig. 67 (13) shows a sherd with a raised band, with the pattern—here a herring-bone pattern—incised with a sharp-edged implement. In Fig. 67 (12) we have a raised band with a line of shallow hollows.

Another style of moulded ornamentation is exhibited in Fig. 67 (9), the decoration consisting in a series of knobs, or single knobs, raised on the surface of the vessel.

*Stamped or punched* ornament is of rare occurrence in this period, and is seldom found save in the pointed jugs with disc or knob bases, which are either Egyptian or else local imitations of Egyptian models.

*Incised* ornament is also uncommon. It is always applied to some salient feature of the vessel, and usually consists of a series of vertical nicks, as illustrated in Fig. 67 (15).

*Potters' marks* occur very frequently. The simplest form is that made by the finger, usually the index finger. These marks are generally found on the handles of the vessels. Sometimes they were made on the inner surface of the handle, but usually on the outer surface and the upper attachment. They were made either singly or in groups.

Another form of mark was made by means of a pointed instrument, and consisted in lines—usually drawn so as to form a cross. As a rule these crosses

were impressed on the handles, as in the case of the finger or finger-nail marks, but on disc-based vessels these marks are sometimes found on the bases. Seal impressions<sup>1</sup> have also been discovered: the latter belong for the most part either to the time of the Twelfth Dynasty or the Hyksos Period.

### THE THIRD SEMITIC PERIOD.

Foreign influence is manifest in this as in the Second Semitic Period. *Ægean* and *Cypriote* ware still occur, but the specimens recovered are not so numerous and are of a less elaborate character. Egyptian vessels are also occasionally found, one of which is illustrated in Fig. 68 (1). This vessel is about 8 inches high, and the surface is dark-red and burnished.

The use of the wheel is practically universal, only rough saucers [cf. Fig. 68 (2)] being hand-made.

In the majority of cases the ware employed resembles that in use during the preceding period, and is, as a rule, fine and homogeneous in character.

Jars resemble those of the Second Semitic Period both in shape and size. The bases, however, are as a rule blunter, and a flat dome-shaped base now makes its appearance.

Various kinds of jug were in use. Fig. 68 (9) affords an example of the commonest and simplest type of two-handled jug. The chief characteristics are an oval body, a concave neck ending in a continuous mouth, two loop handles and a pointed or blunted base. There are many varieties of this general type, which is also found in a variety of sizes. Other jugs of the period are obviously local imitations of *Cypriote* models. These have globular bodies, one or two handles as the case may be, and a long cylindrical neck [cf. Fig. 68 (3)].

<sup>1</sup> *Gezer*, ii, p. 176.



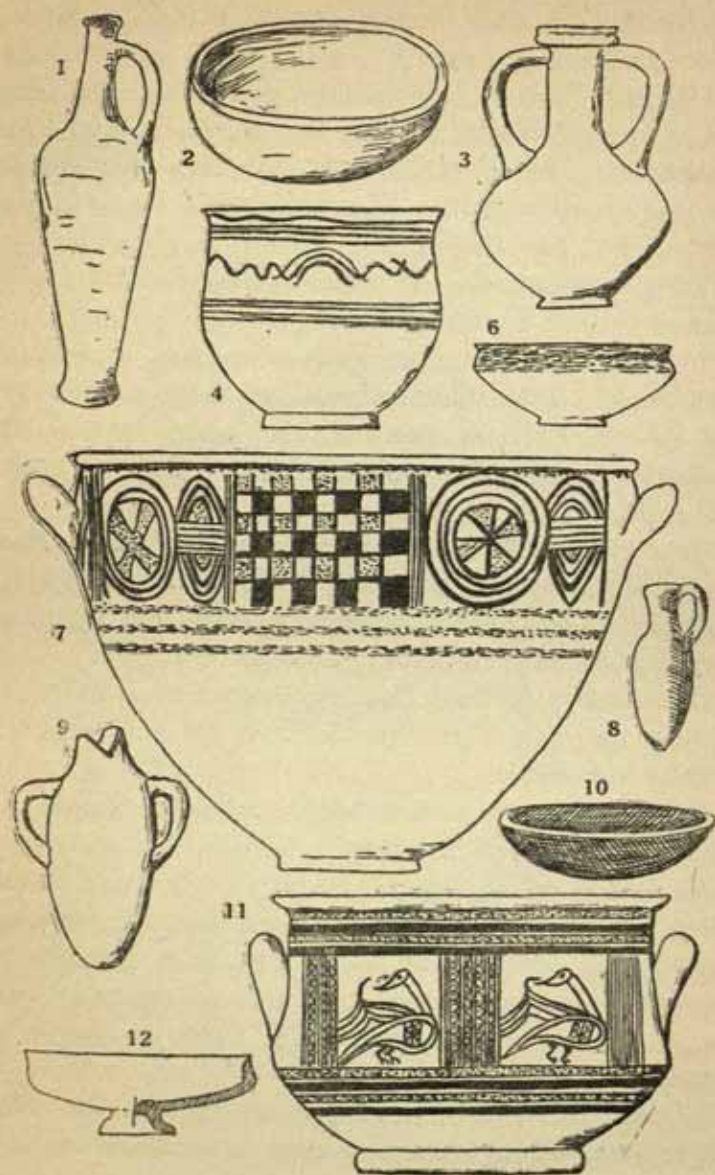


FIG. 68.

In regard to bowls, the general type prevalent in the Second Semitic Period continues with variations. Two specimens belonging to this period are illustrated in Fig. 68 (6), (12). It will be noted that the latter, which is covered with a white slip, stands on a trumpet-shaped foot. In the same way the bowls with painted designs of Mycenæan origin which are found in the Second Semitic Period still obtain, as Fig. 68 (11) at once demonstrates. Another example of this foreign type of bowl is illustrated in Fig. 68 (7). Small bowls of the same general characteristics are also of frequent occurrence. The ornamentation of these is, however, not so elaborate as that of the larger bowls, and consists of coloured lines—straight, spiral, or zigzag [cf. Fig. 68 (4)].

Another class of bowl is seen in Fig. 69 (2). Many bowls of this description have filter spouts [cf. Fig. 69 (3)]. They have disc bases and a body which expands upwards and then contracts abruptly.

Other bowls of the period are V-shaped, as illustrated in Fig. 69 (5). The example here represented has a hollow ring base.

A large number of saucers have been recovered. Of these there are endless varieties both in size and shape, as is shown by Fig. 69 (4), (6), (7), (9), (10). Some have flat bases, others ring bases, and others again have round bases. The sides are either straight or curved expanding. Saucers, as well as jugs and bowls, are occasionally perforated with holes to serve as filters.

Water-pots, used in particular at cisterns for filling larger jars, have conical bodies, a concave neck, a mouth usually spouted, a flat or more often a ring base, and one handle.

The large water-pitchers never essentially changed



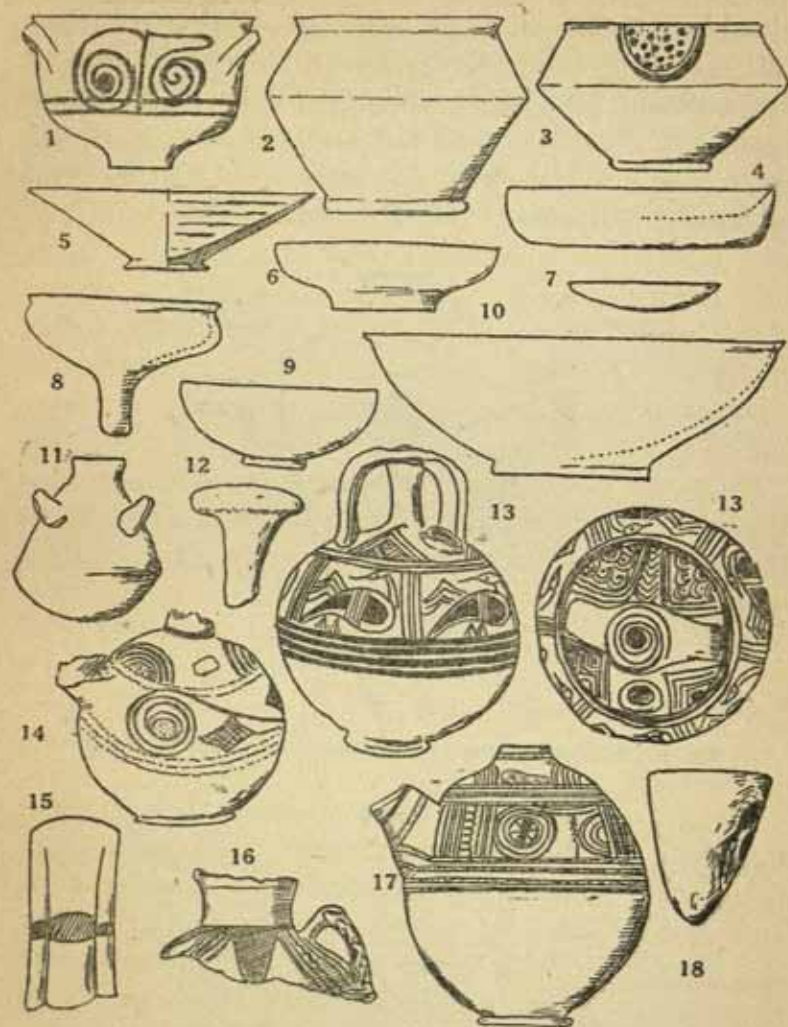


FIG. 69.

from the earliest to the latest periods, and this is the kind of jar to which the stamped handles of the Israelite Period belong. They usually have rounded bases and shoulder handles, as a rule two, but sometimes more (cf. Fig. 70). The two specimens<sup>1</sup> shown in Fig. 71 are probably both to be assigned to the latter part of the Third Semitic Period, but obviously are not of the same date. They show the process of development which this particular form of vessel underwent.

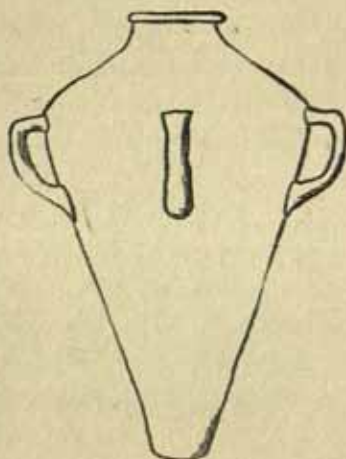


FIG. 70 (see Bliss-Macalister, *Excavations in Palestine*, Plate XXX).

Of the various other types of vessel belonging to this time, the following are deserving of special mention: small pots having a conical body, rounded base, and two ear handles; vessels having globular bodies, disc bases, cylindrical necks, usually a loop handle, and frequently a spout: the decoration of these vessels at once betrays their Mycenæan origin [cf. Fig. 69 (14)]; lentoid vessels, now much commoner than heretofore, and *bügelkannen*, of which a good specimen is seen in Fig. 69 (13).

<sup>1</sup> Cf. *P. E. F. Annual*, 1912-13, Plate XVIII.



The lamps of the time resemble those of the Second Semitic Period, save that the spouts are longer and the sides thereof are parallel. Lamps of a more complex character, and consisting either of bowls with several spouts round the rim or else a series of single lamps set on a hollow or solid ring of pottery, are also found. When the ring of pottery is hollow or tubular it is itself the reservoir from which all the lamps draw their oil, but when it is solid the lamps are independent

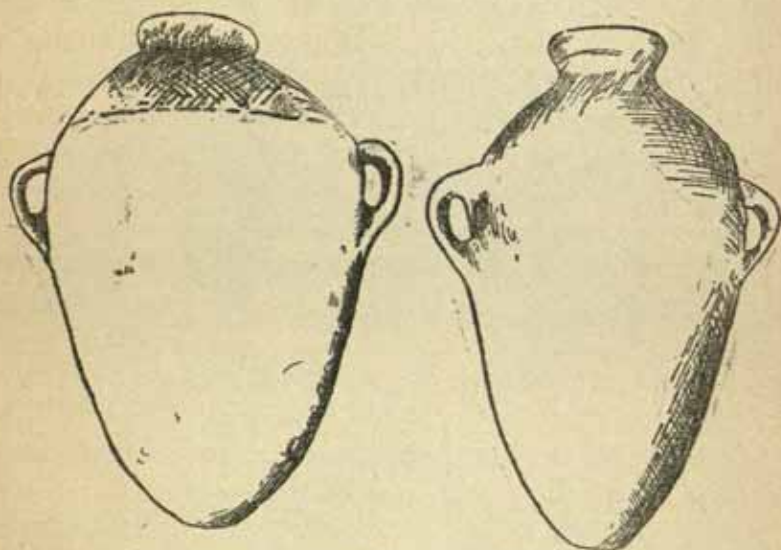


FIG. 71 (see *P. E. F. Annual*, 1912-13, Plate XVIII).

of each other, each having its own supply of oil. The square lamp with four spouts is still used occasionally. Various other specimens of the potter's art at this time have been recovered, but they are as a rule too unique to be characterized as typical, and consequently have no place in this short epitome.

The handles of Third-Semitic vessels are very various; they include the button handles, and the loop handles of the preceding periods. The jar-handles

are all long loops, generally inverted triangular in shape, but sometimes heart-shaped. They are never moulded.

The button handles of the period are usually shaped like a dice-box, as in Fig. 66 (24). Loop handles of several strands are still found as previously [cf. Fig. 69 (15)]. In this period bottle-fillers or funnels, of which an example is seen in Fig. 69 (8), came into use. Sometimes they are attached to the side of a vessel [cf. Fig. 69 (18)]. The liquid was poured slowly through this receptacle into the vessel, any impure sediment naturally sinking to the bottom of the filler, while the liquid passed through the orifice on the side of the filler into the vessel. Ring-bases are of frequent occurrence in this and the following periods. Jar-stoppers continue in use, both ordinary clay stoppers [cf. Fig. 69 (12)], and also saucer-shaped stoppers with two handles [cf. Fig. 67 (8)]. The latter do not apparently survive this period.

Painted ornament is the commonest form of decoration of the time. In general it resembles that of the preceding period, but lacks even the very limited and partial originality and spontaneity of the Second Semitic Period, a lack accentuated by an extravagant elaboration of conventional detail. In this period the painted decoration is on the whole monochrome rather than polychrome, while the figures are represented in comparatively fine lines, while in the Second Semitic Period the outlines are filled in, and the lines with which they are defined are broad. The colours used are generally black, red, buff, occasionally grey and white, and very rarely blue, green, and yellow.

The scheme of decoration is confined to the "permutations and combinations" of a series of motives mostly of Ægean origin. The spiral is one of the



commonest of these motives. As a rule it winds from the centre right-wise; that is to say, it follows the same direction as the hands of a clock [cf. Fig. 69 (1), (14)] or the turn of an ordinary English screw. The germinal centre of the spiral is always a circle, which

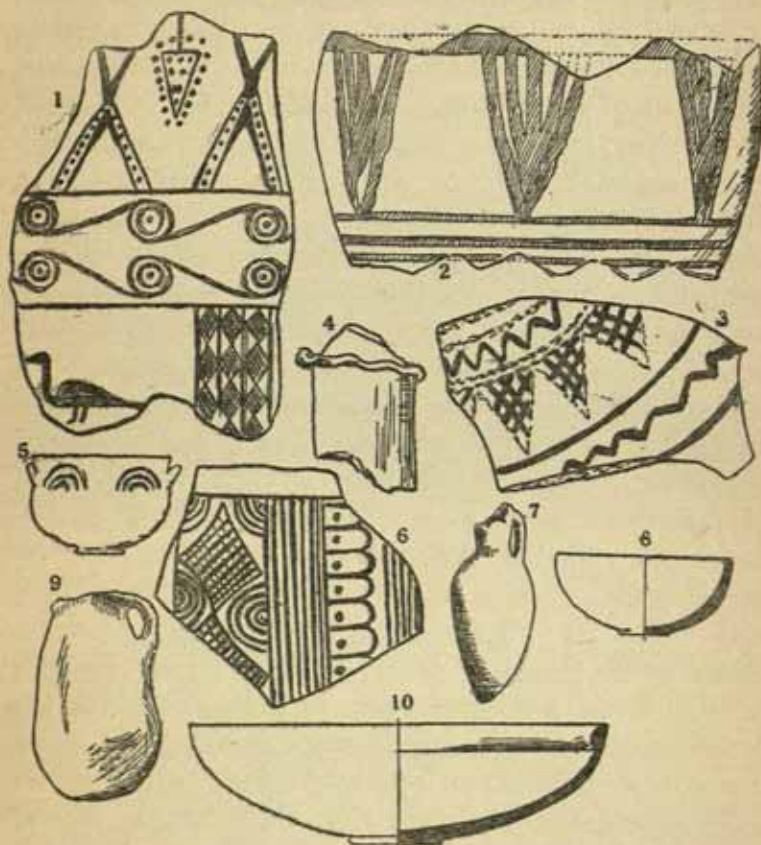


FIG. 72.

is often occupied with two double axes crossed as in Fig. 68 (7), but the circle is frequently filled in entirely with paint of the same colour as that of the spiral itself [cf. Fig. 69 (1), (13)].

Various other geometrical devices were also in vogue,

two of which, i.e. concentric circles [cf. Fig. 72 (1)] and concentric semicircles [cf. Fig. 72 (5)], are but degenerate forms of the spiral motive. Another form of decoration consisted in a number of small squares arranged like a chess-board, as seen in Fig. 72 (3), (6). The artistic effect of the squares was usually enhanced by filling in some with colour and leaving the others open. Zigzags were also employed; they were usually arranged vertically, but sometimes horizontally, and as a rule have one or more straight lines on either side of them. The colour of these lines is sometimes different to that of the zigzags which they enclose, but that variation is exceptional. Rows of triangles are obviously a very easy and natural development of the zigzag pattern, the base of the triangle being the only necessary addition. The triangles are often filled in with dots, a blob of colour, or a fretwork design [cf. Fig. 72 (3)]. Motives consisting of dots alone are seldom found. The lozenge-shaped device is of common occurrence, and is arrived at by the duplication of the triangular mode of decoration. The enclosure is often ornamented with a fret [cf. Fig. 72 (6)]. Sometimes a vase was painted with radiating lines [cf. Fig. 72 (2)] or plain vertical lines. As has been already remarked, the double-axe motive is sufficiently common, and occurs in various combinations and arrangements.

The potters of the time did not, however, confine themselves to the reproduction of geometrical devices; they also looked to the vegetable and animal worlds to supply them with objects for their artistic attempts. Tree motives are rare, and are characterized by an infidelity to nature and a conventionalism which has rendered them in some cases almost as geometrical as geometrical designs properly so-called [cf. Fig. 73 (4)].



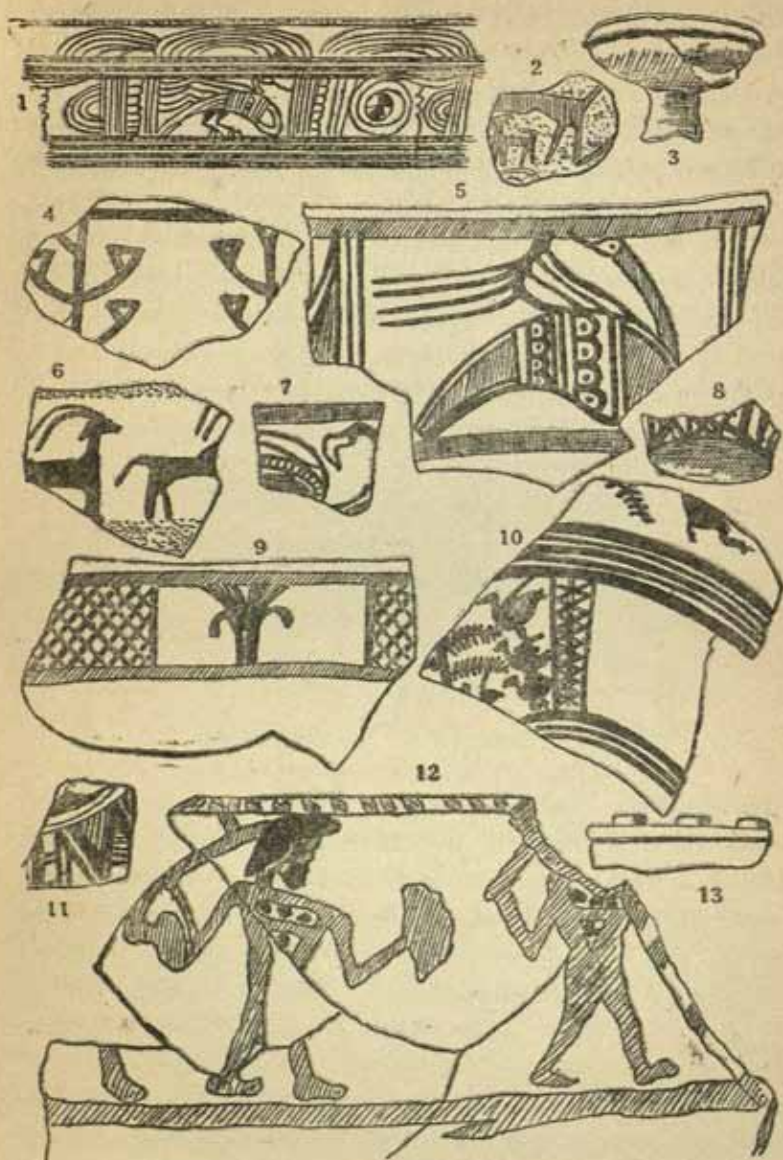


FIG. 73.

In Fig. 73 (9) we have a fragment of vase decorated with a palm-tree, which stands out as the sole relief to the monotony of an empty rectangular space bounded by red lines and flanked on either side by rectangular spaces filled with a fret of red and black. The trunk of the tree is likewise parti-coloured, while the branches are alternately red and black.

But the Third Semitic potters showed a marked preference for birds in their naturalistic representations, the commonest type selected being that exemplified in Fig. 73 (5). This variety is of frequent occurrence in the *metopes* of frieze patterns. It is suggestive of a peacock, and though it is true that bird is not known



FIG. 74 (see Sellin, *Tell Ta'anek*, Fig. 90).

in Palestine, both the style of ware and the general scheme of decoration of which these birds form part are of foreign origin, and therefore the peacock theory is not so improbable as it might otherwise seem. The bill of the bird represented in Fig. 73 (7) is perhaps suggestive of a flamingo, while the fact that the breast of the bird is almost always painted red supports this view.

Another type of bird of rarer occurrence and smaller size appears in Fig. 73 (10). Birds of this variety are always painted in monochrome, the colour used being generally red, while the body of the bird is entirely coloured and is never painted simply in outline.



Animals, the precise character and breed of many of which it is quite impossible to determine, are much less common than birds. They are usually painted with a uniform wash of colour. Horned animals, probably intended to represent ibexes, occur the most frequently [cf. Fig. 74]. Fish hardly ever occur, the octopus represented in Fig. 75 being quite exceptional. Human beings, again, are also very seldom encountered, one of the best examples being afforded by a sherd discovered at Megiddo,<sup>1</sup> shown in Fig. 73

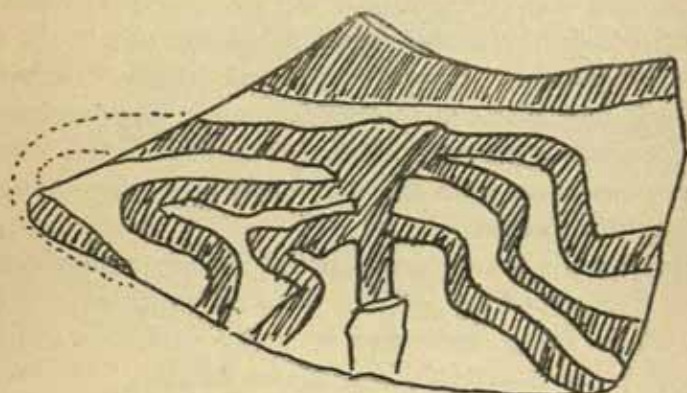


FIG. 75 (see Macalister, *Geneser*, Fig. 348).

(12). The faces are bearded and clearly represent Semites.

But painted ornament, though by far the commonest, was not the only mode of decoration obtaining in the Third Semitic Period. *Combed* decoration is still found, but not nearly so frequently as hitherto. The same remark applies to burnished decoration; the burnishing is, moreover, not carried out with the same skill as in the preceding era, while *continuous burnishing* was given up altogether. *Moulded* decoration is occasionally used, and generally assumes the form of

<sup>1</sup> Cf. Steuernagel and Schumacher, *Tell el-Mutesellim*, Plate XXIV.

a series of knobs [cf. Fig. 73 (13)]. *Incised* ornament was practically abandoned.

The *potters' marks* resemble those of the preceding period. Scarab impressions are, however, more rarely met with, while on the other hand there is a greater variety of nail-marks.

#### THE FOURTH SEMITIC PERIOD.

The pottery of this period is characterized by an absence of foreign influence, on the one hand, and a marked lack of native originality on the other. Small ointment-pots of brown ware and highly burnished were, indeed, imported from Cyprus at the beginning of the Fourth Semitic Period, but with a few casual exceptions these form the only class of foreign imports during this period.

Hand-made vessels occur, but the wheel predominates, as in the preceding period. Various clays were used, but as a whole the ware is gritty and coarse, but generally hard-baked. The deterioration of the ware, as times goes on, corresponds not unfittingly with the deterioration of the artistic merits of the finished product.

The large jars with one handle and a dome-shaped base still continue. A type of jug very common at this period is illustrated in Fig. 76 (1). As a rule they have an inverted conical body, a concave neck, a wide mouth, one loop handle and a ring or disc base, but there are many varieties of the same general type.

The small jugs of the time are sometimes hand-made, sometimes wheel-made. There are endless varieties, but they all attest the decadence of the period. The development and subsequent deterioration of the one-handled jug are easily studied, by reason of



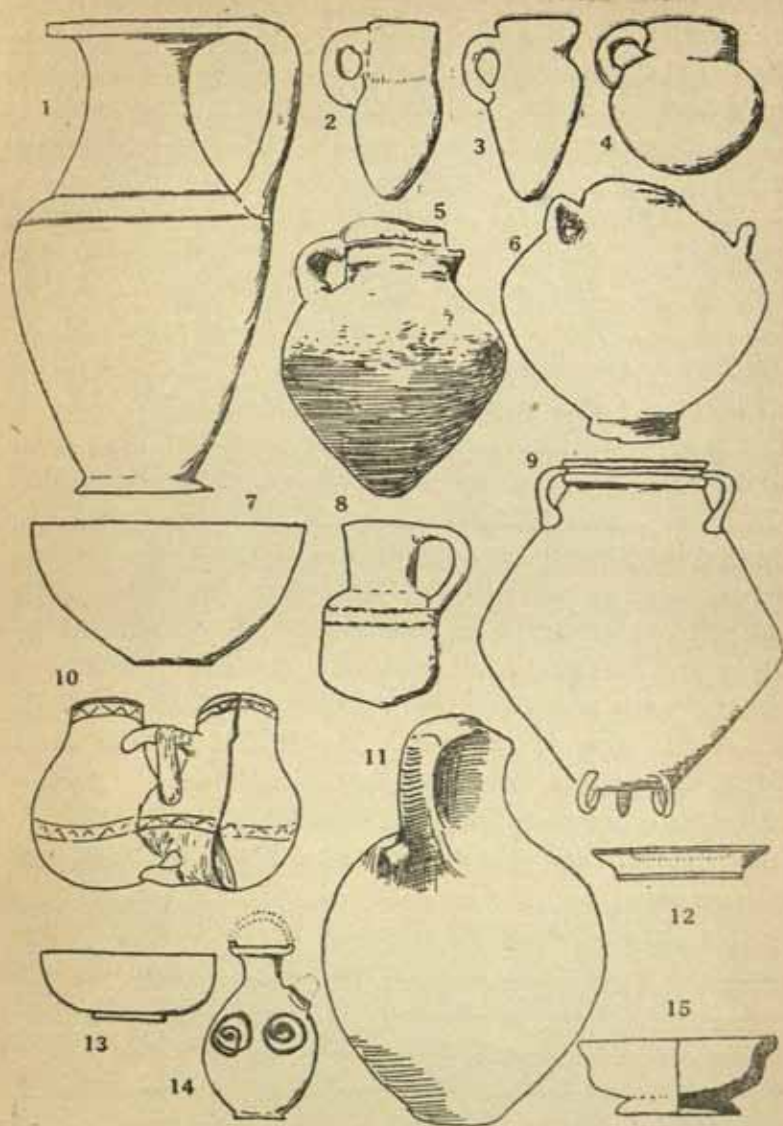


FIG. 76.

the fact that this kind of vessel in one form or another persists from the first, each period having its own peculiar type. The jugs of the Fourth Semitic Period are inartistic in form and clumsily made. The body is cylindrical, conical, or globular [cf. Fig. 76 (2), (3), (4)]; the neck is generally more or less cylindrical, the loop handle circular, and the base blunt-pointed.

The water-pitchers are of the same type as in the preceding period. A good example<sup>1</sup> is shown in Fig. 78 (6). Store-jars<sup>2</sup> form another class of large vessels, of which a fine specimen is shown in Fig. 77. The lid here consists of a bowl, as so often at this time. There were bones in the bowl and at the bottom of the jar. Such bones were commonly found in the vases, and the remains of a skull were not infrequently found in a bowl. Where, as in this case, they have been deposited in a tomb, the human remains were put into the jars when the space they occupied in the chamber was required for other burials. Store-jars of this kind normally remained stationary in the house, and could be used as a kind of reservoir for water, wine, or olive oil. They have actually been found in position with their bases sunk into the plaster floors of houses. The four handles on the shoulder are quite a characteristic feature of the store-jars of the period.

The water-pots of the time as a rule have globular bodies, a wide neck, a spouted mouth, one loop handle and a blunt-pointed base. A typical example is illustrated in Fig. 76 (5), but of this general type there are many varieties, some water-pots having ring or disc bases, others showing diversity in other ways [cf. Fig. 76 (6), where three ear handles take the

<sup>1</sup> Cf. *P. E. F. Annual*, 1912-13, p. 67; Plate XXXVII (item 17).

<sup>2</sup> *Ib.* p. 89, Plate LVIII.





FIG. 77 (see *P. E. F. Annual*, 1912-13, Plate LVIII).

place of the normal loop handle]. Another class of water-pot in use at this time is distinguished by having three feet resembling handles [cf. Fig. 76 (9)]. Numerous specimens of the one-handled water-decanter, of the type shown in Fig. 78 (11), (12), (13) occur. They were found in great numbers in the divan tombs at Bethshemesh<sup>1</sup> but they have also been found at other sites, e.g. Tell Sandahannah and Tell Zakariya. Of the various other types of vessels in use it is only possible here to specify some of those which occur most frequently. Lentoid flasks, usually of small size, occur in this as in the previous periods. Globular vessels with a spout and a horizontal loop handle attached to the mouth also persist into this period [cf. Fig. 76 (14)]. There is a great variety of saucers, those on trumpet-shaped feet being perhaps the most characteristic type in the Fourth Semitic Period. Saucers of the cyma shape [cf. Fig. 76 (15)] as well as hemispherical saucers with flat bases [cf. Fig. 76 (7)] or disc bases [cf. Fig. 76 (13)] also appear. Small saucers [cf. Fig. 76 (12)] are of comparatively frequent occurrence, and are more common in this than in the preceding period. The pair of ordinary saucers or bowls shown in Fig. 78 (7) were found in a tomb at Bethshemesh.<sup>2</sup> The smaller serves as a cover to the larger; the latter was found to contain mutton bones which evidently formed part of a funerary feast. This is interesting, because it clearly shows that at such feasts the relations of the departed one were not the only participators, and that the soul of the dead person himself was not only believed to be present but also to actually join in the meal. The small vessels found

<sup>1</sup> *P. E. F. Annual*, p. 66, Plates XXXIII (item 28), XXXVII (item 14), XLIV (items 6, 10), XLVII (items 12, 13).

<sup>2</sup> Cf. *ib.* 1912-13, p. 67, Plate XXXVII (items 11, 12).



in the Third Semitic Period which are sometimes regarded as toys, but are more probably receptacles for *kohl*, also continue in use.<sup>1</sup> The same remark applies to the circular pottery tubes decorated with a

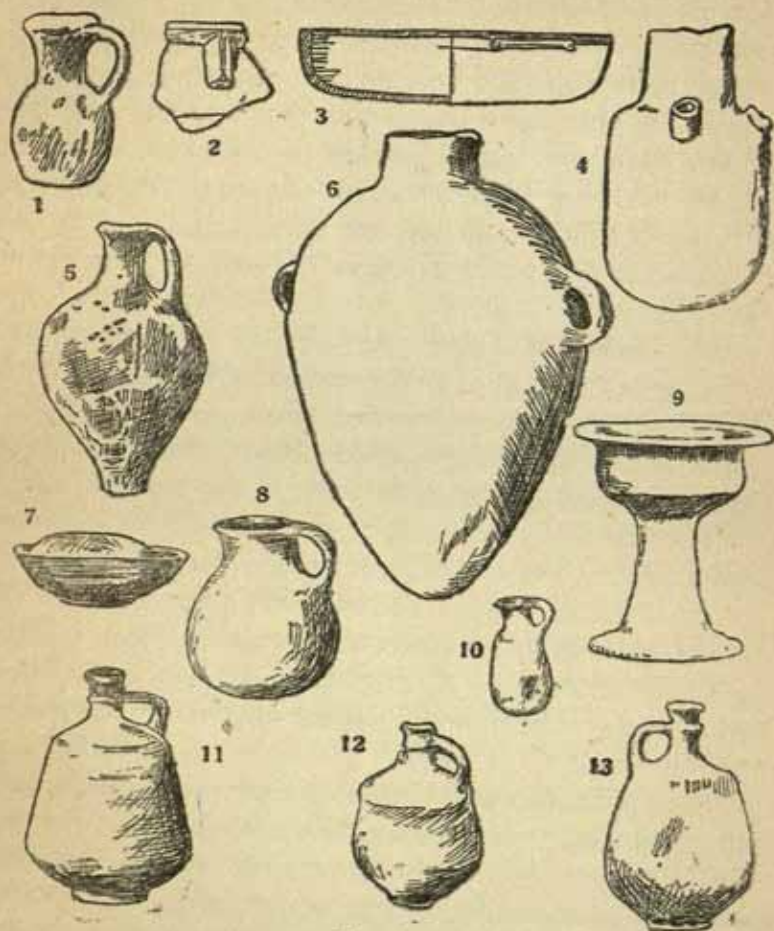


FIG. 78.

row of birds, cups, pomegranates, or lamps, which persist into the early part of this period.

Lamps of the ordinary type present the same general

<sup>1</sup> Cf. Macalister, *Geser*, iii, Plate CLXIX (item 6).

characteristics as those of the Second and Third Semitic Periods, but the tendency to close the flanges is more marked (see below, p. 271). Baking-trays with holes are common at this time. Lastly, a large number of double vessels have been recovered, of which there are two main classes, namely, those in which the two component parts are connected and those in which they are entirely separate [cf. Fig. 76 (10)]. The vessel here represented consists of two vases measuring some 8 inches in height and connected towards the top by a trifid handle on the side, and at the bottom by a bar. The ware is coarse, of a drab colour, and painted red.

The bases of large jars are, as a rule, of the "umbrella" type already referred to. Jugs, on the other hand, generally have rounded bases, while small jugs have either ring bases or disc bases, the latter being more common in the early part of the period.

The handles of the large jars are, as a rule, longer horizontally than vertically, a feature very characteristic of the Fourth Semitic Period, while they are generally broad and flat. The lower attachment of loop handles is often bifurcated [cf. Fig. 76 (11)] and embellished with knobs, which would appear to be the survival of button handles.

Button handles still obtain and generally consist of a short vertical rib running downwards from the rim [cf. Fig. 78 (2)], but sometimes of a horizontal bar attached to the sides of the vessel, as in Fig. 78 (3). Ear handles are of comparatively rare occurrence.

Tubular spouts are fairly common, the one illustrated in Fig. 78 (4) being a good typical example. The jar-stoppers of the time resemble those of the preceding period.

A somewhat rare form of jug<sup>1</sup> which still retains its

<sup>1</sup> Cf. *P. E. F. Annual*, 1912-13, p. 67, Plate XXXVII (item 13).



clay stopper is shown in Fig. 78 (1). The fact that this small vessel is provided with a stopper probably indicates that it contained something of more than usual value, e.g. milk or olive oil.

In regard to ornament, there is a marked deterioration in the Fourth Semitic Period. The *combed*, *burnished*, and *incised* modes of decoration are uncommon, while painted ornament, which was so largely and variously used in the last period, is for the most part confined to broad or narrow rings surrounding the vessel. *Zigzags*, *lines*, and *spirals* are sometimes encountered, but their execution is rough and careless. The *double-axe* motive is no longer found, while the *bird friezes*, so characteristic of the Third Semitic Period, have disappeared entirely.

A certain decorative effect was often given to the pottery by turning the wheel very rapidly, the result being that the rills on the outside of the vessel are very strongly marked. This is so frequently the case, that it apparently must have been intentional (cf. the store-jar in Fig. 77).

*Moulded* ornament is of fairly frequent occurrence, but betrays the decadence of the potter's art which is observable in all the work of the time.

Potters' marks continue to be common, but scarab stamps disappear and seal-impressions take their place. These latter consist either of stars or names in the old Hebrew alphabet, or a combination of the two. These seal-stamps probably belong to the Persian Period.

The scratched devices generally resemble those found on the earlier ware, but the absence of marks derived from the old Hebrew script is remarkable in view of the frequent occurrence of old Hebrew seal-stamps (see further, p. 172 f.).

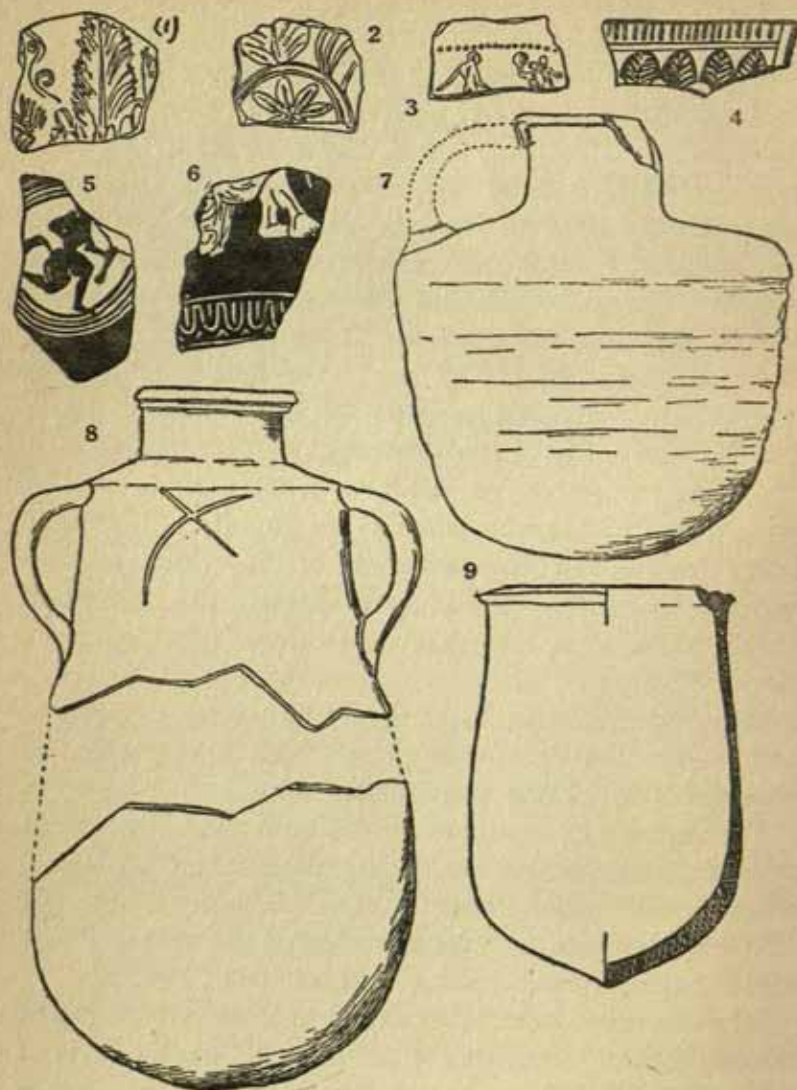


FIG. 79.



## THE HELLENISTIC PERIOD.

The Hellenistic Period, as its name betrays, was one in which foreign influence was paramount—an influence shown either by the actual importation of foreign ware or in the local imitations of foreign models, both in the decoration of the vases and also in the shapes adopted. Many fragments of Greek lekythoi, black and red figured vases, and vessels with various patterns in relief have been brought to light. In Fig. 79 (1), (2), (3), we have three good examples of the foreign products of the time. They consist of fragments of bowls with patterns stamped on them in relief. In Fig. 80 (8) we have a complete saucer, the inside of which is decorated with a stamped pattern, and the whole of which is covered with a glossy black varnish. The black figured ware of the time is illustrated in Fig. 79 (4), (5), while a specimen of red figured ware, which is much rarer, is reproduced in the next figure (6).

As might be expected, the wheel is practically used universally, only a few cups, saucers, or other small vessels being made by hand. The ware is very fine and homogeneous, and is always well baked.

The normal type of jar has a rounded or bluntly pointed base, vertical sides, "abruptly flattened or oblique shoulders,"<sup>1</sup> two loop handles just under the shoulders, and a round mouth, the lip of which is slightly upturned [cf. Fig. 79 (8)]. The specimen here shown is stamped with a potter's mark. Another type of jar of less common occurrence is characterized by a long tapering base.

In Fig. 79 (7) we have a type of jug fairly common at this time. Jugs of this description are globular in shape,

<sup>1</sup> Cf. Macalister, *Gezer*, ii, p. 213.

have a wide expanding body, a cylindrical neck, a rounded base and one loop handle.

The cylindrical U-shaped vessels of the Fourth

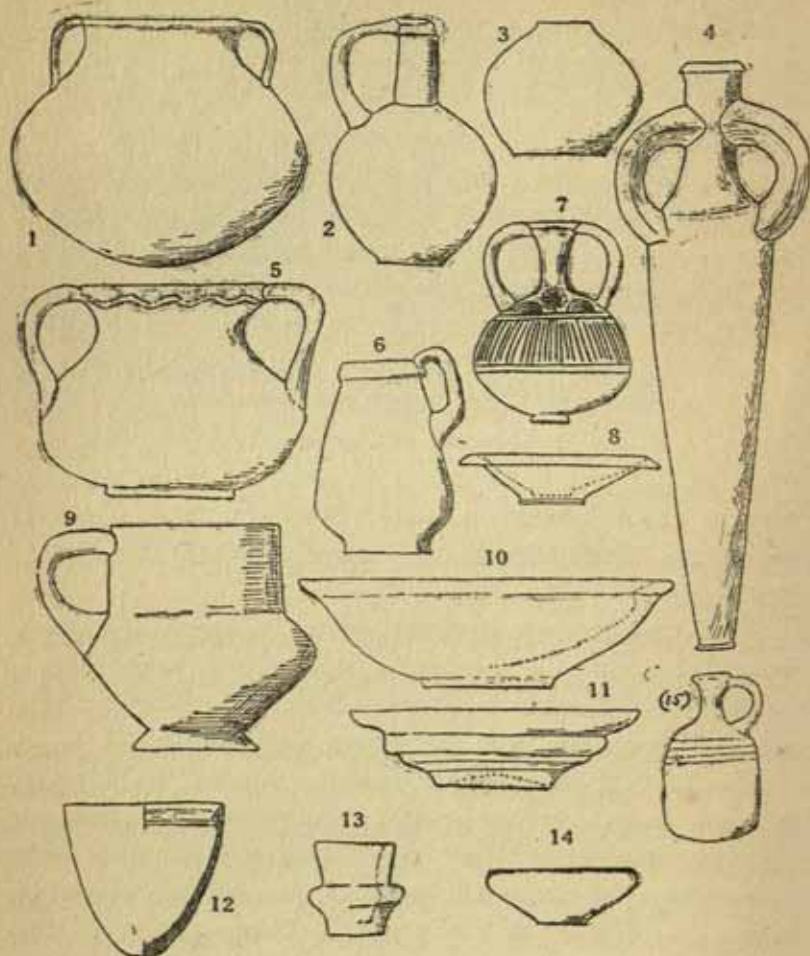


FIG. 80.

Semitic Period still persist [cf. Fig. 79 (9)], and a considerable number of these have been recovered from the Hellenistic strata.

The cooking-pots of the time are globular in shape,



a short, wide neck and a round continuous mouth [cf. Fig. 80 (1)].

The small jugs and vases show considerable variety. The type illustrated in Fig. 80 (2) is obviously Cypriote in character. It is globular in shape, and has a disc base, a cylindrical neck and a moulded lip.

Globular neckless jugs are again of very common occurrence [cf. Fig. 80 (3)]. A large number of conical vessels have also been recovered, of which a good example appears in Fig. 80 (6). Their bodies are prolonged upwards like a cone, ending in a continuous mouth with spreading lip. They are furnished with one handle, and have a disc or ring base.

An interesting two-handled jug is reproduced in Fig. 80 (7). It is decorated with black lines, and at the top is a concentric and semicircular motive with a red centre, a survival of the Third Semitic Period.<sup>1</sup>

Another type, quite different from those already described, is represented by the long, narrow vase in Fig. 80 (4). They have a long inverted conical body, a fairly long neck, and are either handleless or else have two loop handles as in the example given. A further class of jug is exemplified in Fig. 80 (9). These are always of superior ware; the body is "inclined to be lozenge-shaped in vertical section, but working off at the top into a wide cylindrical neck."<sup>2</sup> These jugs have one loop handle.

Other jugs of the period have an oval body and two loop handles. These are usually decorated with a narrow ledge of pottery waving up and down [cf. Fig. 80 (5)].

The ordinary jug with one handle still persists, with either flattened or blunted bases [cf. Fig. 80 (15)].

A characteristic type of Hellenistic bowl is seen in

<sup>1</sup> Cf. Macalister, *Gezer*, ii, p. 215.

<sup>2</sup> Cf. *ib.* ii, p. 215.

Fig. 80 (10). The ware, as a rule, is covered with a red slip. They have a widely expanding body, a ring base and a lip moulded internally.

A saucer of the normal type is reproduced in Fig. 80 (14); they have a flat base and an inwardly curving rim. The larger specimens are, as a rule, decorated with a splash of greyish-brown paint, applied irregularly to the edge, while the smaller saucers generally have a faint ribbing.

Superior saucers in imported red-slip ware are, however, also found fairly frequently. These have an inverted conical and widely expanding body and a ring base [cf. Fig. 80 (8)].

Another type of saucer is illustrated in Fig. 80 (11). These are of homogeneous yellow ware. The sides, which expand upwards, are moulded on the outer surface and have massive ring bases.

Occasionally bowls of this period are V-shaped. They are plain outside and moulded on the inside of the mouth [cf. Fig. 80 (12)].

Small kohl-pots similar to those in the Fourth Semitic Period are very common [cf. Fig. 80 (13)].

A curious type of vessel resembling a beehive<sup>1</sup> is shown in Fig. 81 (6). Specimens have been found on various sites in Palestine, but their precise object and use was a matter of speculation until Dr. Mackenzie had the good fortune to recover two examples at Bethshemesh, in each of which was a juglet of the ordinary common type. These juglets were obviously used for ladling olive oil from the jars. Experiments as to their capacity showed that they were probably used as measures, and the same scholar suggests that the oil may have been measured for sale on the spot.

<sup>1</sup> Cf. *P. E. F. Annual*, 1912-13, p. 100.



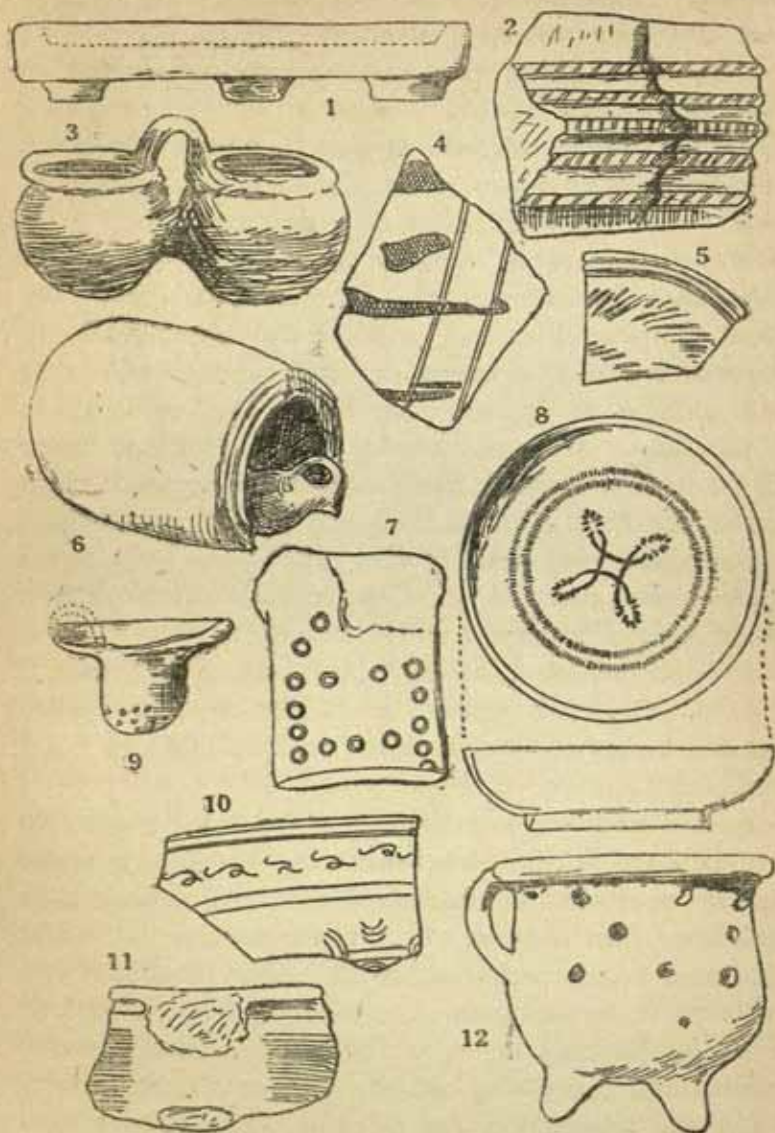


FIG. 81.

Double vessels are of rare occurrence, one of the best examples being that given in Fig. 81 (3). The vessels here have no internal connection, and in addition to the bar joining the two saucers, they are united by a horizontal loop handle.

Animal motives are seldom used in the pottery of the time, the handle made of an animal's head shown in Fig. 88 (8) being quite exceptional.

Strainers are very common, a good typical example being that illustrated in Fig. 81 (12). They generally stand on three short feet, and are about 4 inches high, the bowl itself having a rounded base, a cylindrical body, with a moulded lip, one loop handle and perforations in the sides. It is noteworthy that perforations never occur in the base. The mouths of jugs are also sometimes fitted with straining screens [cf. Fig. 81 (9)].

*Burnished* ornament is rare, and *combed* ornament is also uncommon. A good specimen of the latter type of decoration is seen in Fig. 81 (11).

*Painted* ornament, again, seldom occurs, and when it does, it lacks the originality of the earlier work. Many vessels, however, are decorated with splashes of paint irregularly applied [cf. Fig. 81 (4)].

*Incised* ornament is sometimes found, but the patterns are plain and call for little comment. Jars of a superior quality were not infrequently fluted. All vessels thus ornamented are covered with a warm red slip. *Moulded* ornament in this period usually consists of a roll with nicks on it, in imitation of a rope [cf. Fig. 81 (2)].

A type of moulding very characteristic of this period consists of impressing on the surface of the pottery "a row of spaces with the point of a triangular instrument" <sup>1</sup> [cf. Fig. 82 (1)].

*Pattern stamping and punching* are more used in

<sup>1</sup> Cf. Macalister, *Geser*, ii, pp. 221, 222.



this period than ever before. This style of decoration is not infrequently combined with *incised* ornament. The jar-handle in Fig. 81 (7) affords a good example of decoration consisting of punch-marks.

Lastly, mention must be made of what is known as the *sgraffito* method of decoration, which was first introduced in this period. It consists in covering the vessel with colour and then scratching devices upon it, the natural colour of the clay where the devices are scratched standing out against the background of colour with which the rest of the vessel is covered. The example here given [cf. Fig. 81 (10)] is entirely in *sgraffito*, but sometimes this style of decoration is combined with painted ornament.<sup>1</sup>

In regard to the details of the pottery of this period in general, it will have been noted that loop handles are the normal type of handle used, while ring bases are almost universally used.

Potters' marks scratched on vessels are of frequent occurrence. A selection is given in Fig. 82 (11)-(21). Sometimes a name was painted on the surface of the vase, while in many cases a seal was stamped on the vessels. The seal-stamps not infrequently bear inscriptions in very late Hebrew characters.

#### LAMPS.

Allusion has already been made to lamps. They make their first appearance in the Second Semitic Period. They consist of shallow saucers with a rounded base and a spout drawn out at one side of the rim. The oil apparently floated on water within. In the earliest lamps the spout is a very slight projection, and triangular in shape, but in course of time it

<sup>1</sup> Macalister, *Geser*, ii, p. 223.

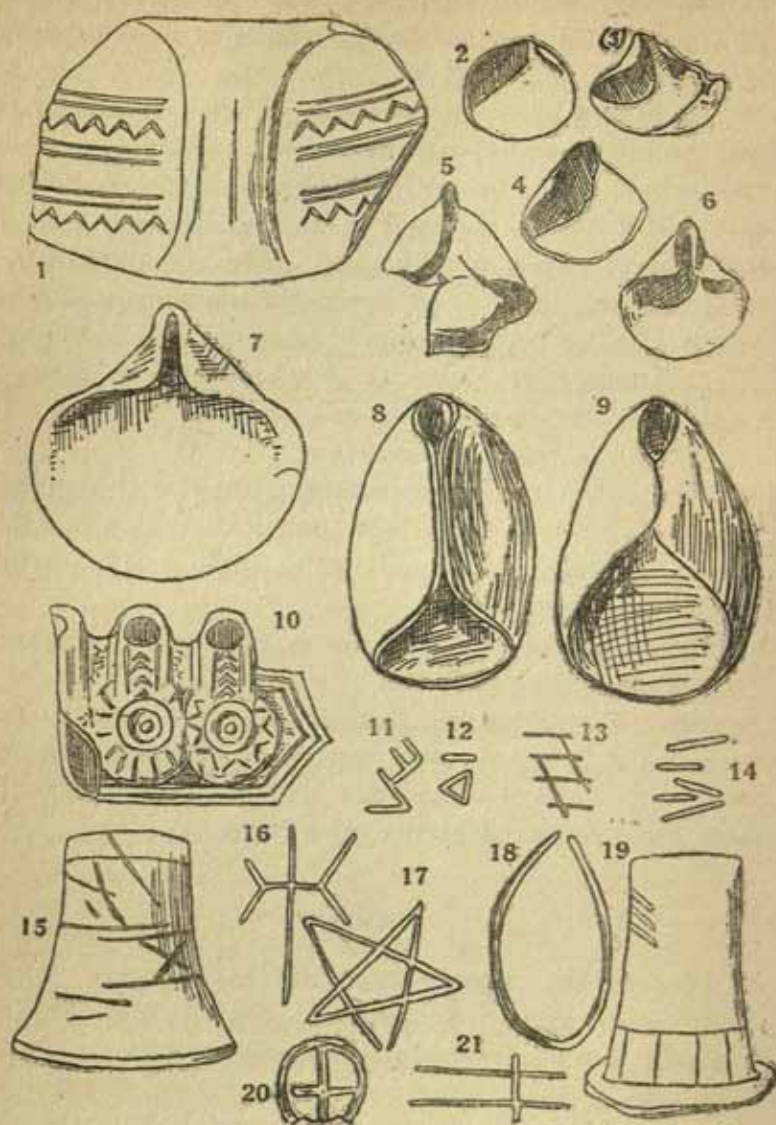


FIG. 82.



becomes more and more pinched in, until in the Hellenistic Period the flanges meet or even overlap. In the second place there is a tendency in later times to develop a flattened or raised base. The regular course of development which the spouts of these lamps underwent is well illustrated in Fig. 82 (2)-(9), the first two of which belong to the Second Semitic Period, and the last two to the Hellenistic Period.<sup>1</sup>

As already remarked, lamps in which the flanges of the spout overlap occur in the Hellenistic strata,

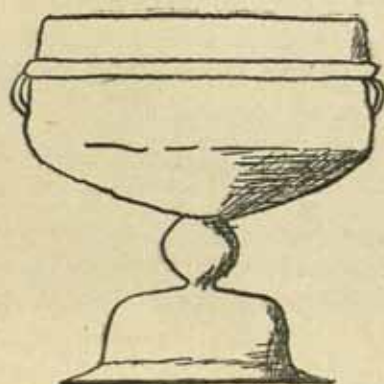


FIG. 83 (see Macalister, *Gzer*, Fig. 393).

the final stage being reached when the two wings of the spout fuse into a tube and the reservoir of the lamp is closed, except for a hole in the middle. The upper surface of these lamps was generally decorated. Multiple lamps sometimes occur [cf. Fig. 82 (10)]. The object here represented has two complete lamps and part of a third, with a common reservoir.

#### GLASS.

The use of glass was imported from Egypt in the Third Semitic Period. Many glass beads and fragments

<sup>1</sup> Cf. also *P. E. F. Annual*, 1912-13, Plate XXV.

of glass vases of this time have been recovered. The beads show the ordinary characteristic shapes, but the vase-fragments are for the most part too small and incoherent to enable one to determine the original shapes of the vessels of which they once formed part. These glass fragments are generally decorated with waves of colour running through the texture of the glass, as in the case of Egyptian vases of this time.<sup>1</sup>

It was not till the Fourth Semitic Period that clear glass was made in Palestine.

Probably the finest glass product of the Hellenistic Period is the wine-glass from Gezer, shown in Fig. 83, but it was only in the Roman and Byzantine times that glass became at all common.

<sup>1</sup> Cf. *Gezer*, ii, p. 239.



## CHAPTER VII

### TERRA COTTA

THE majority of the terra-cotta figures discovered in Palestine are either images or emblems of the gods, or else form part of a vessel. An early example of the latter class is illustrated in Fig. 84 (1). It is impossible to say with any certainty whether the head here represented is that of an animal or a human being. It crowns (?) a cover of a vessel, the upper part of which is solid, but is drilled through with a small hole; the back is decorated with three perpendicular lines in dark-red, and three horizontal lines, one of which encircles the body; there are also red lines on the arms, the eyes being indicated by red spots.

But the most interesting of all the terra-cotta representations found in Palestine are the "Astarte plaques," which exhibit great variety (on the Astarte cult, see pp. 364 ff.). They generally consist of female figures in the nude, impressed in low relief on plaques of terra cotta. They are for the most part formed in terra-cotta moulds,<sup>1</sup> and they are nearly all broken. This may in part be the result of the performance of some religious ceremony, or again the work of destruction may in some cases have been executed by Yahveh's faithful devotees,<sup>2</sup>

<sup>1</sup> Cf. *Gezer*, iii, Plate XIX, 16, and Plate CCXXI, 16, where moulds of this kind are illustrated.

<sup>2</sup> Cf. Vincent, *Canaan*, p. 163.



FIG. 84.



while the fragmentary condition of others may be due to their suspension to the wall of a house and their consequent fracture when the house collapsed.<sup>1</sup> As, however, no plaques with suspension-holes have been discovered, the latter proposed explanation is entirely conjectural. These plaques vary from about 4 to 8 inches in height, the average height being about 6 inches and the breadth from 2 to 2½ inches. The top is usually arched, and they are generally wider at the top than at the bottom. As a rule, the field in which the figure is impressed is sunk a little below the edge of the plaque.

Some of these figures are apparently modelled after Babylonian types, others again are Phœnician or Cypriote in character, while a certain number display Egyptian influence. Occasionally, Egyptian, Babylonian, and local influence are all discernible in a single specimen. This syncretism is well illustrated in Fig. 84 (2). The head-dress is as clearly Egyptian as the astrological emblems at the bottom of the plaque are Babylonian, while the local influence is shown by the full-face representation. An Egyptian artist would of course have rendered the head in profile.

The prominent hips illustrated in this specimen [Fig. 84 (2)] from Tell eṣ-Şâfi and also in the plaque discovered in the remains of the third city at Lachish [Fig. 84 (3)] are clearly after the Phœnician style, while the lotus plants in the extended arms are obviously due to Egyptian influence. It is interesting to note that phalli are found in association with these types.

A good example of a local imitation of an Egyptian model is reproduced in Fig. 84 (6). The head-dress consists of the Hathor wig, with horns surmounted by

<sup>1</sup> Cf. *Gezer*, ii, p. 411.

two *maat* feathers and a uraeus, while a lotus-plant is grasped in either hand. This specimen was found at Gezer, and in passing it may be noted that the Astarte plaques recovered from that site as a whole exhibit a strong Egyptian influence as compared with those unearthed at other Palestinian sites, and their general prototype is found in the figures of the goddess Hathor, as the Hathor-like wig clearly indicates. This wig is represented by two **S** curves [cf. Fig. 84 (8)] meeting over the forehead.<sup>1</sup> Sometimes these curves coalesce,<sup>2</sup> but generally the parting between them is clearly demarcated.<sup>3</sup> In some cases the curls of the wig are indicated,<sup>4</sup> but this is not usual. Babylonian influence is not, however, entirely lacking in the Astarte plaques from Gezer, as may be seen from Fig. 84 (5). The head-dress here consists of a high cylindrical tiara with vertical streaks, and is certainly copied directly or indirectly from a Babylonian model.<sup>5</sup> Astartes with similar head-dresses have been found at Taanach<sup>6</sup> and elsewhere.

The peculiar characteristics of the female are in practically all cases emphasized, and occasionally pregnancy appears to be suggested [cf. Fig. 84 (14)], but this is exceptional.

Occasionally there is a short veil thrown over the wig [cf. Fig. 84 (4)],<sup>7</sup> but with this exception, all the figures of this class are unclothed. In many cases, however, the figures are adorned with brace-

<sup>1</sup> Cf. *Gezer*, iii, Plate CCXX, 5, 11, 14, 16, 19, 20, 22, 23; and ii, p. 412, Fig. 497, p. 415, Fig. 500.

<sup>2</sup> Cf. *ib.* iii, Plate CCXX, 11.

<sup>3</sup> Cf. *ib.* iii, Plate CCXX, 5.

<sup>4</sup> Cf. *ib.* Plate CCXX, 12.

<sup>5</sup> Cf. Heuzey, *Les Origines orientales*, p. 10, Fig. 6.

<sup>6</sup> Cf. Sellin, *Tell Ta'annek*, p. 45, Fig. 47; the writer's *Latest Light on Bible Lands* (ed. 2), p. 263, Fig. 101.

<sup>7</sup> Cf. also the remarkable Third Semitic specimen in *Gezer*, ii, p. 414, Fig. 499.



lets [cf. Fig. 84 (6)] or anklets, or both [cf. Fig. 84 (13)], while occasionally necklaces, with or without pendants, are also worn,<sup>1</sup> and ear-rings are not unknown.

The attitude of the figures varies considerably. In one group the figure is erect, and the arms hang down close to the sides [cf. Fig. 84 (12)], but in the majority of cases the hands are raised, and are either outstretched and hold a lotus-flower [cf. Fig. 84 (3), (6)] or some other object, or else press the breasts [cf. Fig. 84 (4), (5), (13)]. Sometimes two lotus-plants form a kind of margin round the arched top of the plaque;<sup>2</sup> sometimes, again, the goddess is protected on either side by serpents [cf. Fig. 84 (7)].

At about the end of the Fourth Semitic Period a new type of Astarte figure came into vogue. The body in these figures is shaped somewhat like a pillar, with an expansion at the lower end. The breasts, which are generally very prominent, are supported by the arms, though sometimes the arms hang down by the sides. The head was in most cases modelled separately from the body, to which it was secured by a mortice and tenon joint [cf. Fig. 84 (9), (10)], and, indeed, in some Astarte plaques the head shows a tenon for insertion into the separately formed body.<sup>3</sup>

An early Pre-Israelite example of this type was found in a tomb in the North-West Necropolis at Bethshemesh.<sup>4</sup> The face and wig are Egyptian in character, and a mould was used for fashioning this part of the figurine. The clay was pressed into the mould, and the finger-marks made in the process are discernible

<sup>1</sup> Cf. *Gezer*, iii, Plate CCXX, 2, 16, 17, 20, 23.

<sup>2</sup> Cf. *ib.* iii, Plate CCXX, 4.

<sup>3</sup> Cf. Bliss-Macalister, *Excavations in Palestine*, p. 136.

<sup>4</sup> Cf. *P. E. F. Annual*, 1912-13, pp. 54, 55, and Plates XXII, 9, and XXIII.

on the back of the head, which was left rough. The rest of the figure is made by hand in a "frankly native style." The vase is reddish, and the whole seems to have been originally covered with a white stucco-like substance, the details being picked out in paint after a style well known in Egypt. Nearly all this external treatment has disappeared; sufficient, however, remains to show that the figurine was finished in this fashion.

During the period from about the twelfth to the ninth century B.C. an entirely different style of Astarte figure makes its appearance. This type is represented by the two specimens illustrated in Fig. 84 (11), (15), the former of which comes from Taanach<sup>1</sup> and the latter from Lachish.<sup>2</sup> The bodies of these figures appear to be unclothed, though the incised lines would at first sight seem to indicate the folds of a garment. The hips are abnormally prominent, and their exaggeration is no doubt intended to suggest fecundity. The large pointed nose resembles the beak of a bird, and the eyes and ears are equally grotesque. In the example from Taanach, the ears are pierced with holes for the reception of a pair of massive ear-rings. Figures closely resembling these have been found in Cyprus and at Zinjirli.<sup>3</sup>

To about the same period belongs the little bronze statuette of Astarte with two horns which has been described in the chapter on Metallurgy (cf. p. 198). One of the most primitive (?) or most degenerated (?) Astarte plaques as yet discovered in Palestine is the peculiar object found at Gezer and shown in Fig. 85 (1).<sup>4</sup>

<sup>1</sup> Cf. Sellin, *Tell Ta'annek*, pp. 80, 106, Fig. 113.

<sup>2</sup> Cf. Bliss, *A Mound of Many Cities*, Fig. 111.

<sup>3</sup> Cf. Perrot and Chipiez, *History of Art . . .*, vol. ii, p. 150; Heuzey, *Figurines antiques du Musée du Louvre*, Plate IV, Fig. 5; Ohnefalsch-Richter, *Cyprus*, i, p. 33.

<sup>4</sup> Cf. *Gezer*, ii, p. 416, Fig. 501; Vincent, *Canaan*, p. 157.





FIG. 85

Professor Flinders Petrie, however, regards it as a board for playing some game, and not an Astarte figure at all.<sup>1</sup> The apparent indications of a head and arms, however, seem rather to favour one or other of the former views. Lastly, mention must be made of the so-called "Astaroid vases," or vessels "made in the shape and with the attributes of the *dea nutrix*."<sup>2</sup> A good example of this class of vase is that reproduced in Fig. 85 (2). The vessel stands about 10 inches high, and the mouth is in the top of the figure's head. As usual, the figure is unclothed, a fillet round the head, the remains of a collar round the neck, and bracelets on the wrists being the only ornamental accessories. The legs are solid, and their stumpy character is probably due to the potter's anxiety not to diminish the inner capacity of the vase more than could be helped. The shoulders are perforated with holes, presumably for the suspension of the vessel.

A very remarkable vase made to represent the torso and head of a man is shown in Plates XIX, XX. It was discovered in a tomb at Bethshemesh.<sup>3</sup> This bearded face is strongly Semitic in type, as comes out very clearly in the profile view (Plate XIX). All the features of the face are carefully delineated; the arms are raised after the usual ceremonial fashion, and the hands, which are towards the bosom, evidently held a funnel spout which has unfortunately broken away. The vase itself is of the juglet type, but has a flat low base. It is wheel-made, but the parts representing human features are modelled by hand.

Of the various other terra-cotta figures which are undoubtedly of a religious character, perhaps the most

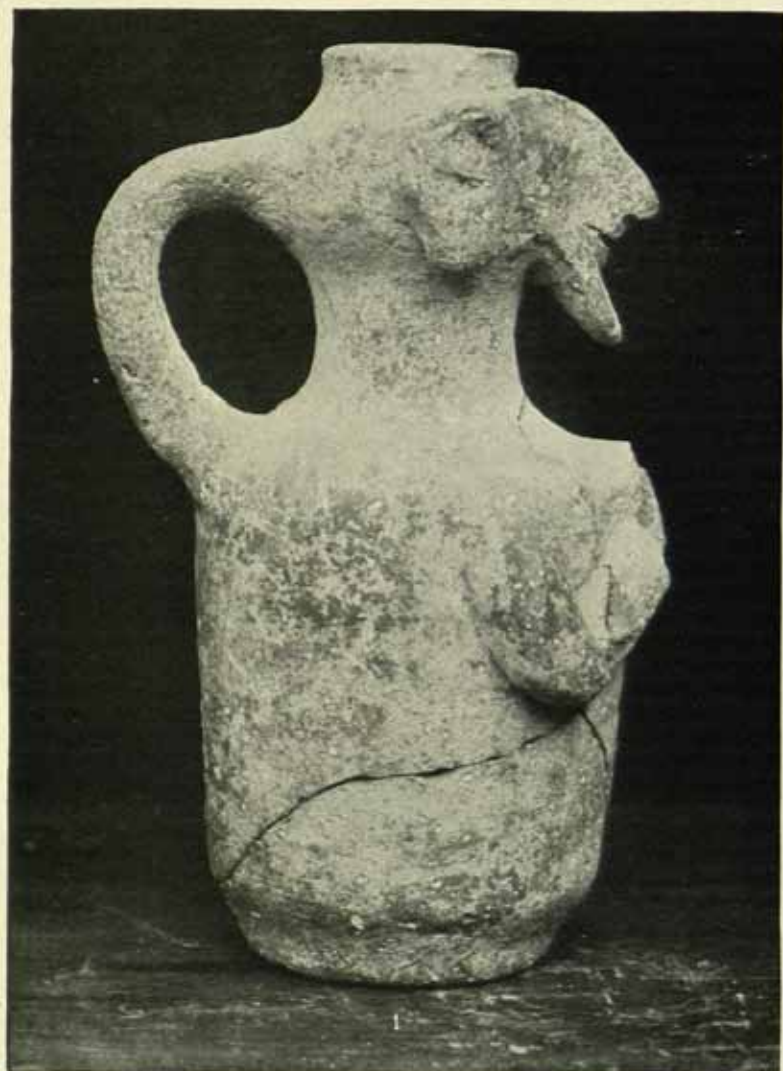
<sup>1</sup> For this information the writer is indebted to Professor Macalister.

<sup>2</sup> Cf. *Genes*, ii, p. 421; i, pp. 305-6, Fig. 162.

<sup>3</sup> Cf. *P. E. F. Annual*, 1912-13, pp. 82, 83, Plate XLVIII.



PLATE XIX



*(By kind permission of the Palestine Exploration Fund.)*

LIBATION VASE FROM BETHSHEMESH.

*(From P. E. F. Annual, 1912-13, Plate XLVIII.)*

To face p. 280.





striking is the bull found near Ashkelon and now preserved in the museum of Baron d'Ustinow at Jaffa.<sup>1</sup> The eyes and the ears are strangely human in appearance, and the artist evidently intended to produce this effect. A double necklace encircles the bull's throat, and in the space between the upwardly converging horns is an erect phallus. We thus seem to have here an illustration of that syncretistic tendency so common in the later phases of Oriental religions. This syncretism is in its own way logical enough. A bull is superior to a human being in strength, just as it is inferior in mentality, and it is thus not unnatural that primitive peoples endowed their gods with the qualities and attributes of both.

Space prevents a discussion of the various images of Egyptian gods found all over Palestine and particularly at Gezer, where Egypt was a dominating influence for so long a period, and, indeed, although found in Palestine, their treatment comes rather under the head of Egyptian than Palestinian archæology.

Apart from the Astarte plaques and figurines, other terra-cotta figures of human beings have been recovered, some of the more interesting of which may here be discussed.

One of the earliest terra-cotta figures as yet discovered in Palestine appears in Fig. 85 (3).<sup>2</sup> It was found amid the Troglodyte remains in one of the numerous cave-dwellings excavated at Gezer. It is one of the very few figures found before the Second Semitic Period. The most noteworthy features of this unique figure are the prognathous lower jaw, the open mouth, and the eyes, which are indicated by simple perforations. Another figure clearly exhibiting the same type and

<sup>1</sup> Cf. Vincent, *Canaan*, pp. 168, 169, Fig. 115.

<sup>2</sup> Cf. *Gezer*, i, pp. 77, 78.

probably belonging to about the same archaic period was discovered by P. Germer-Durand at Kiriath-Yarim (*Aboughôch*).<sup>1</sup> But the vast majority of the figures of human beings recovered date from the Second Semitic Period onwards. They are for the most part ill-formed and devoid of artistic merit, while nearly all of the specimens found are of a fragmentary character, a head or torso being, as a rule, all that remains of figures modelled in the round. No doubt in many cases the original figure consisted simply of a head and bust, but some examples are provided with both hands and feet [cf. Fig. 85 (15)]. Little progress is discernible, and consequently an attempt to classify them according to periods would be of no practical value.

The comparative scarcity of these figures and their general grotesqueness favour the view that they are representations of weird semi-humanly conceived gods, rather than portraits of ordinary mortals.

A very early *head*, found in the Pre-Israelite strata at Tell es-Şâfi, is reproduced in Fig. 85 (10). The eyes are here indicated by narrow slits with round projecting eyeballs and the eyebrows by incised lines; both cheeks and breasts protrude, and dabs of red paint adorn the throat and back, while the stump of one arm still remains. It is hand-made.

In some cases these primitive figures are not fashioned in the round, but are raised in relief on plaques of red clay, with flat or slightly convex backs, like the Astarte plaques discussed above. A good example of one of these early plaques is seen in Fig. 85 (4). This plaque was found at Tell-Zakariya, and recalls the Pre-Israelite figure from Tell es-Şâfi which has been described above [cf. Fig. 85 (10)]. The head is hollow, with a "closed flat top"; both mouth

<sup>1</sup> Cf. *Revue Biblique*, 1906, p. 286, Fig. 100.



PLATE XX

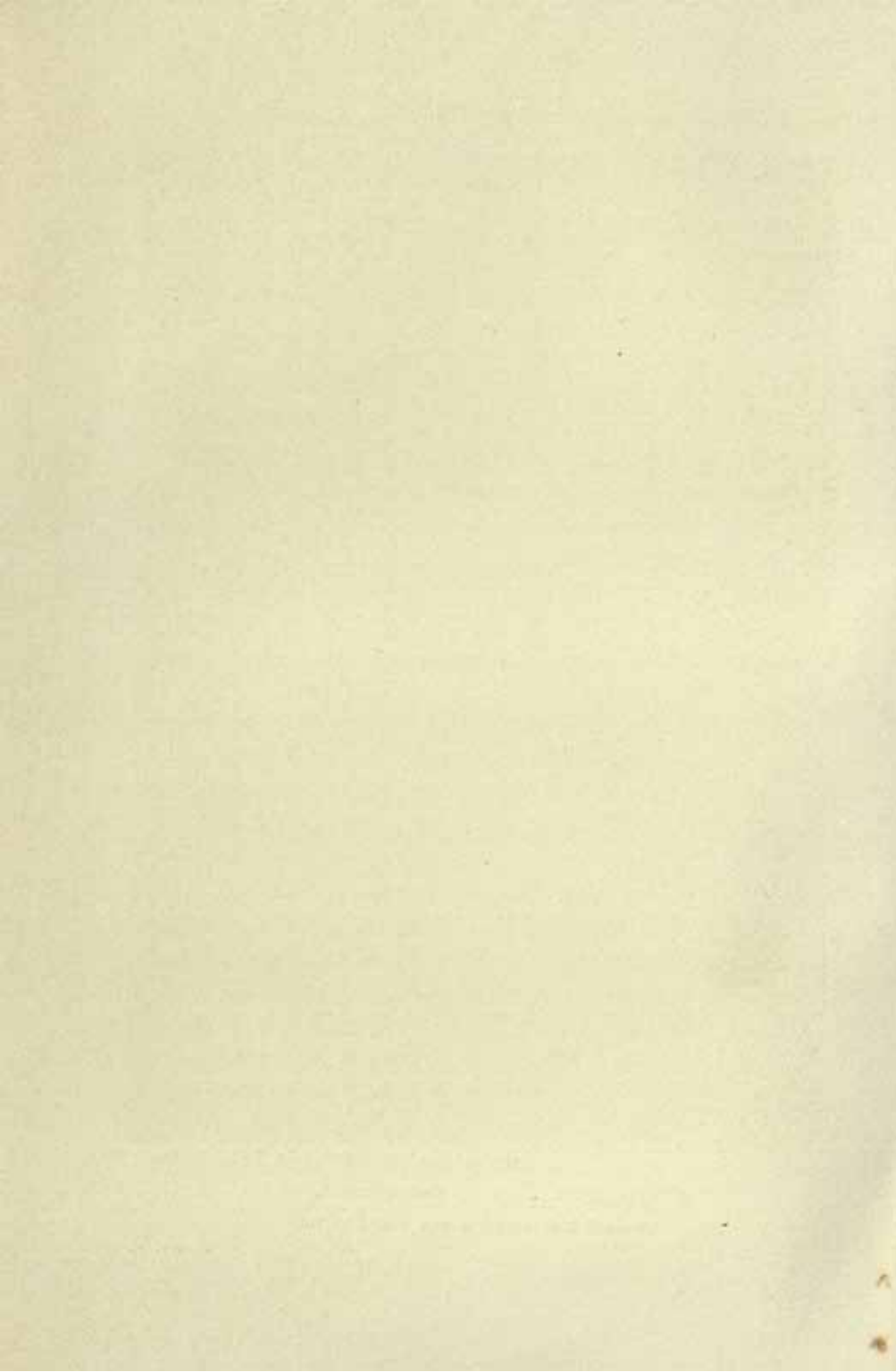


*(By kind permission of the Palestine Exploration Fund.)*

LIBATION VASE FROM BETHSHEMESH.

*(From P. E. F. Annual, 1912-13, Plate XLVIII.)*

To face p. 282.





and eyes are cut through the clay, the eyeballs being indicated by pellets of clay.

Most of the figures of which more than the torso remains are nude, but clothed figures are not unknown, as may be seen from the specimen here illustrated [cf. Fig. 85 (5), *a*, *b*, *c*]. This remarkable little figure was found at Gezer, associated with objects inscribed with the name of Ramses II. The dress consists of a kind of cloak, while the flat head-gear resembles a Tam o' Shanter braided round the edge and with six streamers falling behind. The eyes are "conical protuberances, with a round dot on the apex to represent the pupil." The throat is encircled by a necklace composed of seven pendent beads, and the eyebrows are continuous across the face. The hole through the chest was probably made to facilitate its suspension to the wall by means of a peg. The ware is light-reddish, with a cream slip.

It is to be noted that the terra-cotta figures of human beings are usually beardless, and therefore probably represent females. There are, however, exceptions to this generalization, as in the example reproduced in Fig. 85 (5), which has a pointed beard, as well as in that shown in Fig. 85 (12)], where the beard is modelled. The practice of modelling the beard apparently does not arise till the Fourth Semitic Period.

Generally speaking, it was not till the Hellenistic Period that any marked attempt was made to accurately represent the human face in small figures, and even then the bird-like faces of the earlier figures still persist. There are, however, some noteworthy exceptions to this rule, one of the most remarkable of which is the terra-cotta head discovered at Jericho and belonging to the late Jewish Period (cf. Fig. 86).<sup>1</sup> The grotesqueness

<sup>1</sup> Cf. Sellin-Watzinger, *Jericho*, pp. 149, 150, and Plate 40.

of this head indicates its religious or mythological character sufficiently clearly, but in no way detracts from the vitality with which it is imbued. The bald head, with its strong protruding forehead, its squat nose, broad mouth, and short beard, at once recalls the earlier limestone and terra-cotta heads of an Assyrian demon found at Nineveh,<sup>1</sup> as well as the terra-cotta head found at Amathus in Cyprus.<sup>2</sup> This head is no doubt that of an Assyrian demon; whether it is due to the Assyrian immigrants who poured into Palestine after the captivity of Israel, or whether it is a copy made by the local potters, we cannot say. The head illustrated in



FIG. 86 (see Sellin-Watzinger, *Jericho*, Plate XL, 11, 2).

Fig. 85 (6) and also recovered from Jericho belongs to about the same date, or perhaps a little earlier. The hair is dressed after the Egyptian style, and the head, as a whole, closely resembles the head from Tell el-Judeideh shown in Fig. 85 (14).

Occasionally the potter attempted a group; thus, for example, one late figure apparently represents a horse and rider.<sup>3</sup> In Fig. 85 (13) we have a reproduction of a plaque, also of late date, on which two figures

<sup>1</sup> Cf. Gressmann, *Altorientalische Texte und Bilder*, ii, p. 97.

<sup>2</sup> Cf. Murray, *Excavations in Cyprus*, pp. 112, 113, and Fig. 164, 14.

<sup>3</sup> Cf. Bliss-Macalister, *Excavations in Palestine*, p. 137.



are seen wrestling. The familiar scene of mother and child also sometimes occurs, as in Fig. 85 (7). The mother, who is draped below the waist, is here seen holding the feet of a child seated on her shoulder, while in Fig. 85 (9) we have a charming little group representing a mother suckling her son. The latter is a fairly good classical figurine, and is perhaps an importation from Asia Minor. Of the same late date is the terra-cotta figurine reproduced in Fig. 85 (11), in which a nude woman is represented as arranging her hair. The body is painted natural flesh colour, the hair is brown, and a scarlet band crosses the right shoulder and breast.

Of the various animals represented, the bull or cow and the horse are perhaps the most common.

In Fig. 85 (8) we have a reproduction of a bull's head discovered at Jericho.<sup>1</sup> With the exception of the stump of the left ear, the horns and ears are broken away. It was found amid the débris of the Late Jewish Period, and is apparently a copy of a Cypriote original. Other cows' heads in terra cotta, of a more primitive character and discovered at various sites, are shown in Fig. 87 (1), (2), (3).

Sometimes, however, more or less complete figures of cows were discovered, as for example in Fig. 87 (10), *a, b*. The cow in question, which is hollow, is made of "fine dark paste covered with whitewash." Most of the head is gone, but one horn remains. The type here represented is common in Cyprus during the period from 1200 to 1000 B.C. Sometimes, again, whole vessels appear to have been fashioned in the form of a cow [cf. Fig. 87 (5)].<sup>2</sup> Both horns and ears are broken away in the example given, but the quadruped sug-

<sup>1</sup> Cf. Sellin-Watzinger, *Jericho*, p. 150.

<sup>2</sup> Cf. *ib.* p. 151, Fig. 182.

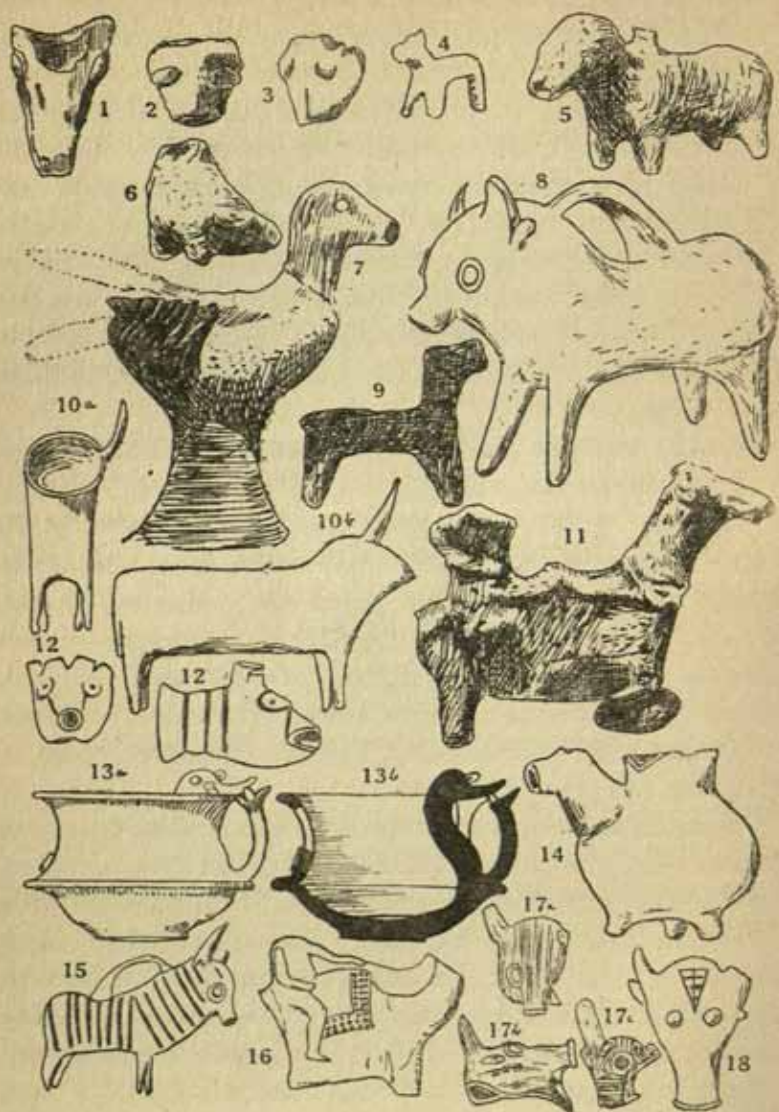


FIG. 87.



gests a cow rather than some other animal. The mouth of the vessel is in the cow's back. In general style and technique it resembles the more perfectly preserved cows from Gezer reproduced in Fig. 87 (15), (8).<sup>1</sup>

Horses, again, are not infrequently represented, a good example of which is the small hand-modelled horse found in a tomb in the North-West Necropolis at Bethshemesh [cf. Fig. 87 (4)].

A terra-cotta horse resembling that from Bethshemesh was discovered at Jericho [cf. Fig. 87 (9)]. It is made of reddish-brown clay, and apart from the ears and the left rear leg, which are broken away, it is well preserved. The muzzle is hollowed out.

Sometimes the rider as well as the horse is represented, as in a figurine recovered from the repository of a tomb at Bethshemesh.<sup>2</sup> This composite figure is complete with the exception of the hands, part of the left ear of the horse, and part of the round object on the left of the horse's head. The bird-like head of the rider recalls the early figurines already described.

On other occasions the potter seems to have attempted to reproduce the form of a camel, and in Fig. 87 (11),<sup>3</sup> (16),<sup>4</sup> we have two examples, in both of which the rider is also represented.

In the example from Taanach, Fig. 87 (11), the animal is supported by four short supports, intended, of course, to represent the feet and legs. The cylindrical body terminates in a long extended neck, at the end of which is a narrow pointed head. In the middle are the remains of what would appear to have been the

<sup>1</sup> Cf. Macalister, *Gezer*, i, p. 305, Fig. 161; iii, Plate CXXVI, 23.

<sup>2</sup> Cf. Mackenzie, *P. E. F. Annual*, 1912-13, Plate LV.

<sup>3</sup> Cf. Sellin, *Tell Ta'annek*, Fig. 48.

<sup>4</sup> Cf. Bliss-Macalister, *Excavations in Palestine*, p. 139.

hump of the camel, while behind the hump is seated the rider. Unfortunately both his head and left arm are missing, but sufficient remains to show that the figure is naturally conceived and executed, and does not share the grotesque character which the artist has imparted to so many of these terra-cotta figures. It is hand-made, and the red clay of which it is made apparently shows no sign of any treatment with colour, slip, or wash. It is impossible to determine the precise object which this little figurine was destined to serve.

The camel and rider shown in Fig. 87 (16) is in a very fragmentary condition. The man is clad in a tunic and is seated on a saddle-cloth with a decorated border, represented by a series of incised dots. The figure is hollow.

Bird figurines are also not unknown, the bird usually selected being a dove. Thus in Fig. 87 (6) we have the decapitated body of a bird found in the Late Jewish strata at Jericho. The bird is in a restful posture, its two wings lying close to its body. In some cases vessels or lamps are fashioned after a bird. Thus in Fig. 87 (7) we have a lamp possibly representing a duck,<sup>1</sup> the place of the legs and feet being taken by a cylindrical support with a trumpet-shaped base. It is 5 inches long and 9½ inches high. The back has been modelled separately in two pieces, while the wings were also modelled separately and applied afterwards when the rest of the figure was completed. There are holes at the sides of these wings, which Macalister thinks were for the insertion of *real* feathers.<sup>2</sup> The eyes are indicated by circles, and the mouth by a "tubular snout." The body, head, neck, and beak are all heavy and clumsy. An attempt has been made to show the wings outstretched, by means of deep incisions and consequent ridges in high relief on

<sup>1</sup> Cf. *Geser*, ii, p. 16, Fig. 216.

<sup>2</sup> Cf. *ib.* ii, p. 16.



the upper part of the body. The result is not very artistic, but the attempt itself, at the remote period to which this lamp is probably assignable, is noteworthy. Another object in which a bird plays a prominent part was discovered at Tell eš-Šāfi [cf. Fig. 87 (13) *a*, *b*].<sup>1</sup> It is possibly a votive lamp, and, judging from the curves of the walls and the general contour of the vessel, its prototype was probably a metal vessel. The bird that forms part of this lamp is a swan, the head of which appears above the rim. The conception seems to be that of a swan disporting itself within the vessel. Its flat beak is stretched out as though in search of pasture, which it apparently found in a flower at the top of a long stalk which forms the handle. The neck, which is, of course, concealed within the lamp, is attached to the lower part of the front of the vessel. The wall of the vessel opposite the stem has been hollowed out in order to make the motive more life-like. On the opposite side there is an irregular protuberance which perhaps represents all that remains of the swan's tail.

Lamps (or feeding-bottles?) treated zoomorphically [cf. Fig. 87 (14)]<sup>2</sup> are found in the Second, Third, and Fourth Semitic Periods, but the specimens described above are perhaps the most remarkable of all those that have yet come to light.

In numerous cases the animal world plays a subsidiary part, the handles or spouts being the commonest parts of a vessel fashioned in imitation of an animal. Painted and burnished cows' heads often form the spouts of Pre-Israelite vessels [cf. Fig. 87 (17), (18)].<sup>3</sup> The head illustrated in (17) has rings round the hollow eyes, and also at the end of the tube-shaped snout, while that in

<sup>1</sup> Cf. Bliss-Macalister, *Excavations in Palestine*, Plate XLVII.

<sup>2</sup> Cf. *Gezer*, ii, p. 239, Fig. 391.

<sup>3</sup> Cf. *ib.* ii, p. 137.

(18) has the bulging type of eyes seen in early human figures. Another example of a spout in the form of a cow's head is illustrated in Fig. 87 (12). It has

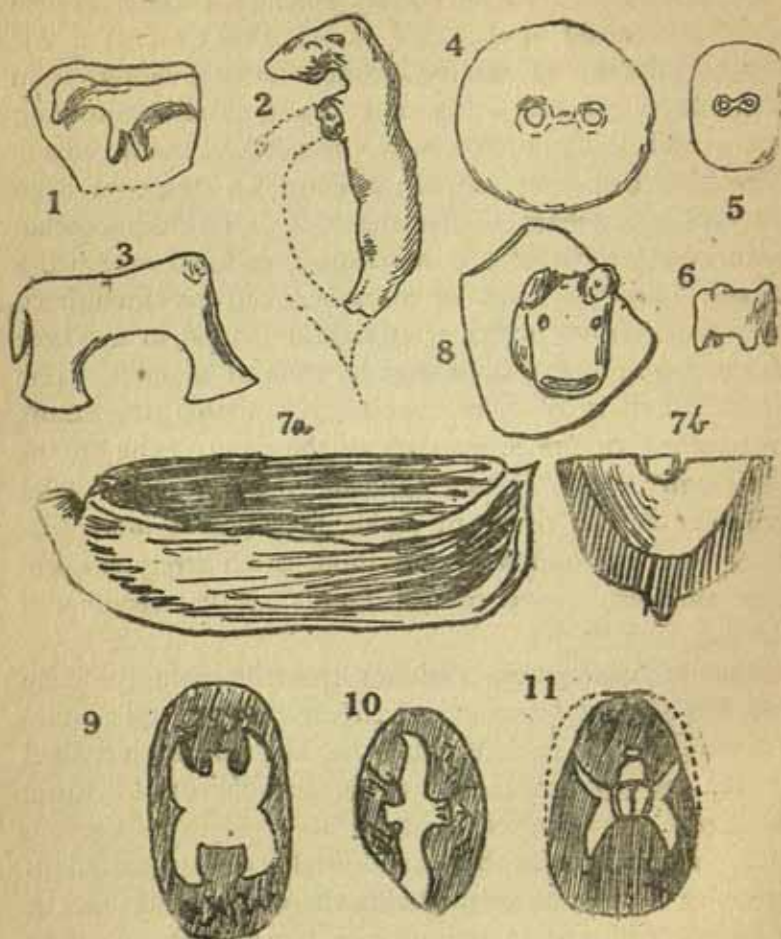


FIG. 88.

the familiar ring-mouth, while the eyes are painted in purple and bands of the same colour encircle the neck. Examples have also been found of an animal in relief forming part of a vessel [cf. Fig. 88 (1)]. Specimens



of handles made to represent animals are shown in Fig. 88 (2), (3).

Numerous terra-cotta buttons have been brought to light, two specimens of which, belonging to the Fourth Semitic Period, appear in Fig. 88 (4), (5). The buttons are distinguishable from the spindle-whorls in being smaller and by having two perforations. Among the various other pottery objects which have been recovered, the model of a boat [cf. Fig. 88 (7) *a*, *b*] is one of the most interesting. It is 7 inches long, 2 inches deep, and has a beam of  $2\frac{3}{4}$  inches. It has a strong and prominent keel, which turns upwards, and ends in a short post at both ends. This model boat belongs to the Israelite Period.<sup>1</sup>

In Fig. 88 (6) we have a terra-cotta model of a throne discovered at Bethshemesh.<sup>2</sup> There is a break in the seat which indicates that there was originally a figure of some divinity enthroned thereon.

But perhaps the most remarkable of all the terra-cotta objects discovered is the incense altar from Taanach<sup>3</sup> (cf. Fig. 89). When found, it was in some thirty-six fragments, but fortunately it was possible to piece them together. It is just under 3 feet high, and resembles a truncated pyramid in shape. Each of the four sides at the bottom measures about 18 inches in length, while the bowl at the top has a diameter of about a foot. The altar, the sides of which are perforated at irregular intervals with round or quadrangular holes, is hollow, and the incense in the bowl at the top was apparently heated by a fire kindled on the ground over which the altar was set. In shape this altar is precisely similar to one discovered by Professor Macalister

<sup>1</sup> Cf. *Gezer*, ii, pp. 448-9, Fig. 532.

<sup>2</sup> Cf. *P. E. F. Annual*, 1912-13, p. 55, Plate XXII, 13.

<sup>3</sup> Cf. Sellin, *Tell Ta'annek*, pp. 75 ff., 109 f.

at Gezer,<sup>1</sup> but is of much larger size and much more elaborately decorated. The decorations comprise a



FIG. 89 (see Sellin, *Tell Ta'annek*, Plate XII).

sacred tree, two lions, three winged human-headed animals (the paws of the former resting on the heads of the latter), a boy, and a serpent. It is noteworthy that the faces of the winged beings are beardless, from

<sup>1</sup> Cf. *P. E. F. Q. S.*, 1908, p. 211.



which it might be inferred that they represent females, but the absence of any indications of the breasts of a woman militates against that view. The faces are oval in shape, the nose is strong, and the eyes are large and almond-shaped. The lions display an even greater vitality. Their mouths are agape, their nostrils dilated, and their eyes wide open—all well in keeping with the rôle which the lions are here playing. In one of the lateral walls there is a representation in relief of a naked boy, who is grasping a huge serpent. At the base of the altar there is a tree flanked on either side by a wild goat. The heads of the goats are turned towards the tree, from which they are endeavouring to lop off a branch or leaf. This unique object is probably to be dated at about 700 B.C., and therefore belongs to the Israelite Period.

Inscribed objects in terra cotta are very rare, while clay never seems to have been used as a writing material in the early periods. The stamped jar-handles to which reference has already been made belong to the Israelite Period. Eighty of these came from the Shephelah region; eight were found at a depth of 79 feet at the south-east angle of the Haram enclosure at Jerusalem, and the remainder come from Gezer and Jericho.

No jar thus inscribed was found complete, but the size, shape, and curvature of the handles indicate with sufficient clearness that they originally formed part of large vessels of the type illustrated in Fig. 71.

Twenty-five of the specimens recovered from the Shephelah were stamped with personal names, probably the name of the potter who made the vessels and that of his father. The shape of these seals is generally an oval or ellipse, in which the two names, separated by one or two horizontal lines, are enclosed.

The names include Hoshea, Naḥam, Azariah, and

Ḥaggai. There are, however, eighty handles bearing one or other of the well-known "royal stamps." With the exception of twenty-seven of these handles, in which the name is illegible, they give us the names of the places where the vessels were respectively made. The four towns mentioned are Hebron, Ziph, Socoh, and Mamshith, the legends reading: "Of" (or "for") "the king. Hebron" ("Ziph," etc.). The stamps consist of an oval, which contains a two- or four-winged symbol with two lines of inscription, one above and the other below. The two-winged symbol, which appears on forty-two out of the eighty, is always conventional [cf. Fig. 88 (10)]; it has a small body, two upward-curving wings, a wedge-shaped head and tail, feathers sometimes being indicated. The four-winged symbol on the remaining thirty-eight is, on the other hand, sometimes treated naturally, and represents a four-winged beetle with well-articulated body and well-shaped head [cf. Fig. 88 (11)] of the ordinary Egyptian type.

Various theories have been propounded in regard to the origin of the symbol.<sup>1</sup> One is that it is a simple winged solar disc. The second is that it is a figure of a god developed from the winged disc. The four-winged symbol is, however, very obviously a scarabæus. Professor Sayce regards the two-winged symbol as a two-winged scarabæus,<sup>2</sup> while another theory is that it represents a bird with outstretched wings.<sup>3</sup>

The chief interest of these jar-handles centres, however, in the short inscriptions which they bear. So far as the Hebrew is concerned they might well be translated, "For the King of Hebron," "For the

<sup>1</sup> Cf. Bliss-Macalister, *Excavations in Palestine, etc.*, pp. 110-12.

<sup>2</sup> Cf. Sayce in *P. E. F. Q. S.*, 1900, p. 170.

<sup>3</sup> Cf. *Recovery of Jerusalem*, p. 473.



King of Ziph," etc., but that rendering cannot be accepted, because they are always found in connection with Late Jewish pottery, and they therefore post-date by centuries the period in which the country was divided up into a number of small principalities, each of which had its own chief or king. There are various theories, again, in regard to the significance of these royal stamps. Professor Sayce<sup>1</sup> suggested that the vessels were made at a royal pottery established at the particular place indicated in the inscription, and aptly referred to 1 *Chronicles* iv, 23 (cf. also 2 *Chronicles* xi, 5-11), which apparently contains a reference to such royal potteries. This would adequately account for the wide geographical distribution of the four places, for the absence of all other place-names, and also for the discovery of jar-handles inscribed with these names at Jerusalem—jars made at these potteries being sold at the capital, as well as at Gezer and elsewhere. As Professor Macalister has pointed out,<sup>2</sup> the objection to this theory is that these stamps are never found except on handles of one specific size and shape. It is certainly hardly conceivable that these widely separated potteries only produced one kind of vessel, and it would certainly be a very remarkable coincidence if all handles from such other vessels had entirely disappeared, in view of the large number of handles of this particular type that have been recovered.

Another theory is that these stamps were simply officially stamped measures of capacity which varied locally, as indeed they do in Palestine to-day. The failure to discover any complete vessel thus inscribed prevents our putting this theory to the test, but it is

<sup>1</sup> Cf. *P. E. F. Q. S.*, 1899, p. 210.

<sup>2</sup> Cf. Bliss-Macalister, *Excavations in Palestine*, p. 114.

certainly significant that nothing to indicate the particular weight is contained in these inscriptions. Moreover, they all appear to have belonged to vessels of about the same size and capacity, and if a royal standard had been set up, it does not seem very probable that there should have been four different royal standards associated with four comparatively insignificant provincial towns. The object of setting up an official royal standard is to procure uniformity. Moreover, the objection available against the "royal pottery" theory, namely, that the stamped jar-handles all belong to vessels of the same type and about the same size, is in a limited degree available against the last-named theory. Vessels for measuring smaller amounts must also have been required, and if the larger vessels were thus officially stamped to guarantee their capacity, surely the smaller receptacles would have been similarly stamped, but no stamped handles of smaller vessels have been forthcoming. For these reasons the measure theory does not seem to the present writer at all probable.

Lastly, M. Clermont-Ganneau<sup>1</sup> regarded the jars as officially gauged and stamped vessels for the collection of the king's taxes by the authorities of the towns inscribed on the handles. This theory was elaborated by Macalister,<sup>2</sup> who then accounted for the geographical distribution of the jars on the theory that after the oil, wine, or whatever they contained, was delivered at Jerusalem, they became the perquisites of the tax-collectors, who sold them to any one who would buy them. Yet a further theory has been suggested, namely, that Hebron, Ziph, Socoh, and Mamshith are the names, not of towns, but of the royal potters

<sup>1</sup> Cf. *P. E. F. Q. S.*, 1899, p. 206 f.

<sup>2</sup> Cf. Bliss-Macalister, *Excavations in Palestine*, p. 114 f.



themselves, and that, for example, in 1 *Chronicles* ii and iv, they are personal and not place-names.<sup>1</sup>

On the whole the "royal pottery" theory seems the least open to objection. Possibly these potteries were established entirely for the manufacture of the particular kind of vessels in which the produce due to the king was conveyed to the capital, thus ensuring no shortage of weight or amount, by reason of the use of officially made jars.

A few jar-handles with royal stamps were found at Gezer,<sup>2</sup> but they added no new material to those already recovered from Jerusalem and the Shephelah Tells. The one exception to this generalization is a specimen bearing the two-winged symbol and the name of Mamshith, but showing no trace of, nor indeed leaving any room for, the usual "For the king."

A number of stamped jar-handles were also found at Jericho.<sup>3</sup> Eleven of these bear the impression of a scarab. They are all made of a coarse grey clay and were all found in the Israelite strata, but the scarabs themselves belong to the first half of the second millennium B.C. It was thus evidently a common practice to either use or imitate old seals. On the other hand, some of the stamped jar-handles discovered on this site bear Hebrew or Aramaic characters. One of the earliest of these exhibits the enigmatical object with two wings already referred to. The characters are written in ligature, and the seal is assigned by Professor Sellin to the seventh century B.C. The characters on the later specimens are Aramaic, and

<sup>1</sup> Cf. Macalister in *P. E. F. Q. S.*, 1905, pp. 243, 328; *Gezer*, ii, p. 210; Driver, *Schweich Lectures*, 1908, p. 77.

<sup>2</sup> Cf. *Gezer*, ii, pp. 209, 210.

<sup>3</sup> Cf. Sellin-Watzinger, *Jericho*, pp. 156-9.

in some cases resemble those found on the papyri from Elephantine. These are probably to be dated in the fifth century B.C. Ten of these later seals bear the name Yah, and three the name Yahû. Both of these are abbreviations of the name of Yahveh, the God of Israel.

The stamps on other jar-handles, again, show no writing, but consist of a small circular impression in which some natural or naturalistic object or scene is depicted. Thus one of the seals consists simply of the figure of a lion, while another shows two ibexes, and a palm-tree between them.

Rhodian stamped jar-handles were also found at Jericho,<sup>1</sup> as at Tell Sandahannah, Gezer, and elsewhere. Jar-handles of this class are generally stamped with two out of the three following items: the name of the Rhodian priest or eponymous magistrate of the year in which the jar was made; the month of his year of office; the name of the merchant who supplied the jar of wine. They afford valuable evidence of the trade in wine carried on with Rhodes in the third and second centuries B.C., and also throw considerable light on the Rhodian calendar and the chronological sequence of Rhodian eponymous magistrates.

Mention must here be made of the valuable collection of ostraka discovered by Professor Reisner in the course of his excavations at Samaria. They comprise some seventy-five fragments of pottery inscribed with old Hebrew characters. They were found in the same stratum as an alabaster vase of Osorkon II, King of Egypt, who was a contemporary of Shalmaneser II, King of Assyria (860-825 B.C.), and was, therefore, a contemporary of Ahab, King of Israel. Dr. Lyon has pointed out that the inscriptions were written on sherds

<sup>1</sup> Cf. Sellin-Watzinger, *Jericho*, p. 149.



originally and not on complete jars, for, in the first place, the beginnings and endings of the lines are obviously determined by the shape and size of the fragment, with the result that the lines are sometimes crowded towards the end, while sometimes the word at the end of the line is divided, the second half being carried on to the succeeding line. Secondly, the writing "crosses the turning lines on the fragment at various angles," whereas labels written on whole jars are horizontal. Thirdly, several of the fragments, each of which bears a separate and complete inscription, fit together, and were therefore originally part of the same jar, and it is obvious that a jar would neither require nor have more than one label. Dr. Lyon, indeed, calls attention to two cases, where the inscriptions appear to have been labels written on the actual jars, for they exhibit peculiarities not found on the other sherds. In the first place the two inscriptions alluded to are very short, and secondly, there is in either case a large amount of blank unwritten surface.

The inscriptions are written in ink with a reed pen, and the script is the early Hebrew, which was practically identical with Phœnician and that employed on the Moabite Stone. The writing is easy and flowing in style, and is much more graceful than the Phœnician inscriptions on stone, a fact no doubt attributable to the use of clay, ink, and a reed as writing materials, instead of a chisel and stone. The characters are very well preserved, and in the majority of cases there is no doubt as to the reading. Generally speaking, these ostraka appear to be labels affixed to jars of wine and oil; they give the date—"ninth" ("tenth" or "eleventh") "year"—probably of the reigning king, but unfortunately, as in the case of the stamped jar-handles according to the more probable theories, no king is actually

mentioned—the name of the owner, and the contents of the jar, e.g. “old wine” or “clarified oil.” Many of the proper names found on these ostraka occur in the Old Testament. Thus, to take a few of the most familiar, we have Aḥimelek, Aḥinoam, Abiezer, Elisha, Asa, Nathan, and Sheba. Some of the proper names are compounded with “El,” one of the Hebrew words for God; “Baal” also forms a component part of not a few names, e.g. Meribaal. “Yô,” again, which has generally been regarded as an abbreviation of the tetragrammaton (YHVH), Jehovah, or more correctly Yahveh,<sup>1</sup> also occurs in several of the names found in these inscriptions. Of the various place-names mentioned, Shechem is probably the most familiar.

Clay, however, was never used in Palestine as a writing material, in the proper sense of the word, and apart from the ostraka, the inscribed jar-handles, and other terra-cotta objects bearing inscriptions, the only examples of the use of clay for writing purposes are the cuneiform tablets found at Lachish, Gezer, and elsewhere. These tablets are in the Babylonian writing and language, and therefore do not properly belong to our subject, but in view of their *provenance*, they perhaps should not be allowed to pass by unnoticed. One of these tablets, discovered at Lachish, is of particular interest, as it has reference to a certain Zimrida, Governor of Lachish, who is otherwise known from the letter he sent to his overlord the King of Egypt; the latter was discovered, along with a number of other cuneiform tablets, at Tell el-Amarna, in Upper Egypt. The discovery of this tablet thus synchronizes the date of the city amid the débris of which it was found with the Eighteenth Dynasty.

<sup>1</sup> Cf., however, the note in the writer's *The Latest Light on Bible Lands* (ed. 2), pp. 191-3.



At Taanach some twelve cuneiform tablets were brought to light, four of which were addressed to Ishtar-washur, the ruler of Taanach. In one of these, Ishtar-washur is desired to send troops, chariots, and horses as tribute, and also presents, to Aman-ḥashir at Megiddo, which clearly indicates that at this time Taanach owed allegiance to Megiddo. The writer of another of these letters is one Aḥi-yami, which is possibly the equivalent of the Biblical Ahijah, and in that case, it would support the view to which other data in the inscriptions have been thought to point, namely, that there were Israelites settled in Canaan before the Exodus.<sup>1</sup>

Two cuneiform tablets were discovered at Gezer,<sup>2</sup> but they are of very much later date. They are both in an imperfect state of preservation, but sufficient remains to show that they are contracts, one for the sale of a field, the other for the sale of an estate, house, land, and apparently slaves also. The names of the owners, of the witnesses to the deeds, and of the eponymous rulers who fix the dates are all legible. Only one of the names is Hebrew, i.e. Nethaniah (one of the owners), nearly all the others being Assyrian. The contracts are drawn up in the form usual in Assyrian tablets, and they may be regarded as betokening the Assyrian domination of Judah at the time (i.e. about 650 B.C.).

<sup>1</sup> See Driver, *Exodus*, pp. xxxviii f., 416 f. (with the reff.); Kittel, *Gesch. des V. Isr.*, ed. 2 (1912), pp. i, 401 f., 526.

<sup>2</sup> Cf. *Gezer*, i, pp. 22-31.

## CHAPTER VIII

### BURIAL CUSTOMS

FROM remote antiquity the burial of the dead has been regarded as one of the most important duties which man has to perform. In our own day the same idea prevails, but performance of this duty to-day involves very much less than the performance thereof in ancient times. The seemly disposal of the remains of the deceased in a grave, a vault, or cinerary urn marks the complete fulfilment of all obligations to the dead—at least from the strictly Protestant standpoint, as well as from the purely secular standpoint—but the conscience of ancient peoples was not appeased or assuaged in so easy a manner. The belief in a future life prevailed then as it does to-day (among the unsophisticated), but the character of that life was in the earliest times regarded as strictly materialistic, and in that respect practically the counterpart of life on earth. But the materialism of their belief in a post-mortem existence only served to enhance its reality, and to break down the barriers which are supposed to exist between the living and the departed and to prevent any intercommunication between the “quick” and the dead.

We are not, however, here so much concerned with the beliefs of the inhabitants of Palestine as with their burial customs.



In the Pre-Semitic Period the inhabitants of Palestine cremated their dead, the ashes being allowed to remain where they fell.

In Fig. 90 we have a plan of probably the earliest burial-place in Palestine.<sup>1</sup> The Troglodytes lived in caves, as we have seen, and they not unnaturally assumed that the dead would be more at home in the same kind of abode as that wherein they dwelt on earth. The cave

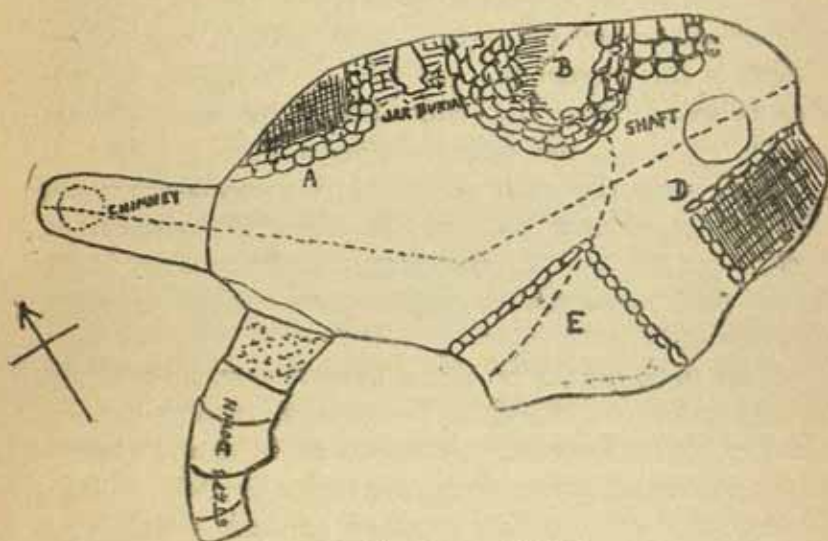


FIG. 90 (see *Gezer*, i, p. 74, Fig. 20).

in question, which would appear to be partly artificial in character, consists of an oval chamber some 31 feet in length and  $24\frac{1}{2}$  feet in breadth, while the height varies from about 25 inches to just under 5 feet. The cave attains its greatest height on the east side, under the roof-shaft bored through the rock platform, which at this spot is about  $3\frac{1}{4}$  feet thick. The outer orifice of this shaft, which is almost circular and about  $3\frac{1}{2}$  feet in diameter, was covered with a heavy stone slab, nearly

<sup>1</sup> Cf. Macalister, *Gezer*, i, pp. 74-6, 285-8.

5½ feet across. Like the other rock caves at Gezer, access was originally gained thereto by means of a stairway, which in this particular case is wider than usual (cf. Fig. 90). In the rock round the entrance are some cup-marks (see further, p. 63), and close by is a standing stone measuring 2 feet high and 1 foot 7 inches in diameter. The proximity of the cup-marks to the entrance of the burial-cave would alone suggest that they are to be associated with some religious rites or ceremonies, but the presence of the standing stone renders this explanation certain, for though it is quite conceivable that the cup-marks may antedate the standing stone, the former perhaps belonging to the period when the cave was used as a crematorium and the latter when it was used as a Semitic burial-place, there can be no doubt that both the one and the other owe their existence to religious associations attaching to the spot.

Just under the roof of the cave is a stratum of soft rock, which to the left of the doorway is about 2 feet thick. This stratum was found to contain a narrow passage some 9 feet long, the end of which is surmounted by a conical chimney, 2 feet 5 inches in diameter at the bottom and 8 inches at the top. The floor within, i.e. to the west of the dot-and-dash line, was strewn with ashes, intermingled with bones. The ashes, on careful examination, proved to be the burnt remains of human beings. The ashes in the upper layer in the neighbourhood of the chimney-passage were white, and they had therefore been subjected to a fiercer burning than the rest. The whole ash deposit was about 1 foot thick near the entrance, but diminished as one got further from the entrance. Under the chimney-sill the ashes were in alternate strata of white and black, from which it



would appear that the fire had subsided and been renewed on a later occasion. It is thus clear that the bones are not the remains of a single cremation. They were for the most part found in their proper anatomical order, which fact shows that the bodies must have been burnt whole, just as they were found.

The absence of any trace of smoke on the walls is surprising, but, as Macalister says, this may be either due to the friable nature of the limestone, the outer surface of which may have worn away in the course of ages, or to the subsequent enlargement of the cave by the Semites who at a later period adapted the cave for the requirements of their own dead.

A quantity of Pre-Semitic pottery, comprising jars, bowls, and pots, was found deposited with the burnt bones, and an interesting amulet made of the metacarpal bone of a kid. The bone in question is pierced with two holes for suspension, and was doubtless worn by one of the individuals whose cremated remains lie here. The variety in shape and size which these primitive vessels exhibit is remarkable, while their presence of course attests the belief in a future life on the part of the depositors.

#### SEMITIC BURIALS.

As already indicated, the cave described above was subsequently used as a burial-place by the early Semites. The latter, however, buried and did not cremate their dead, and this change of custom probably accounts for the alterations which were apparently made in the cave itself. The old stairway entrance was blocked by a wall, and the shaft in the roof already described was cut as a substitute. The reasons given for this change are the inaccessibility of a shaft entrance to dogs and grave-robbers, as compared with the old step-entrance, and the

superposition of houses over the entrance and chimney. The former object was not, however, always attained even by this device, as is shown by the discovery of the bones of a dog just inside the stepped entrance, unless, of course, the dog found his way in before the staircase was closed, which the position of his remains seems to suggest.

Above the stratum of burnt bones belonging to the Troglodyte Period lay a number of bodies which had apparently been buried in a contracted position, and in this respect resembled the earliest burials in Egypt and Babylonia.<sup>1</sup> This embryonic position may have had a symbolical signification—man thus being represented as leaving the world in the same position as that in which he came into it, but probably it was due to the exigencies of space and the desire to economize room as much as possible.<sup>2</sup> Around the wall were a series of enclosures, in some of which human remains were found, and which were probably the graves of distinguished personages. In the enclosure marked A on the plan (Fig. 90) were found the remains of five skeletons, three of which belonged to adults and two to children. The enclosure consisted of a pavement of regularly laid flat stones, raised some 8 inches above the floor of the cave and surrounded by rows of larger stones. On the artificially constructed platform between A and B reposed a large jar—2½ feet high, with a flat base, an inverted conical body, and ornamented by rope-mouldings—which was found to contain the bones of a newly born child. Beads were found amid the bones, doubtless the remains of a necklace that once adorned the neck of the corpse. Possibly this is an example of child-sacrifice.

Enclosure B is of larger dimensions, and is con-

<sup>1</sup> Cf. the present writer's *Latest Light on Bible Lands*, p. 40 f.

<sup>2</sup> In the case of jar burials, the dimensions of the jar of course necessitated this position (cf. p. 321).



structed of stones laid in mud, but apparently any human remains which had once rested there had disappeared. C is an erection of flat stones, the upper surface of which measures about  $3\frac{1}{4}$  by  $3\frac{1}{8}$  feet, and the height of which is 1 foot. The object which it served is a matter of conjecture. Enclosure D resembles A, and contained three skulls and the fragments of a female skeleton. E, which is surrounded by a higher enclosure of stones than either A or D, contained the remains of two more skeletons. An anthropological examination and comparison of the bones of the bodies which were buried and those which were cremated proved that they belonged to two different races and that the Troglodytes were therefore not Semitic. A large amount of pottery was found in this cave, together with a very rude limestone figure, a silver ring, as well as a number of beads of blue enamel, agate, and carnelian, and shells pierced with holes, the remains of necklaces.

The *maššēbā*, to which reference has already been made, was erected on the rocky platform close to the entrance of the cave. It rested upon a bed of débris of about 1 foot deep, and was doubtless set up by the Semitic occupants of the tomb (cf. further, p. 304).

During the early part of the Semitic occupation the tombs are invariably adaptations of already existing caves, and Gezer has afforded numerous examples of the adaptation for sepulture of caves used as dwelling-places at an earlier date.

A good illustration of this is the cave of which a plan is given in Fig. 91 (1).<sup>1</sup> It consists of two chambers (*a* and *b*) connected by a sunk passage (*c*), 9 feet 6 inches deep. Access to the cave was gained by means of a winding staircase leading into the chamber *a*, and it was this

<sup>1</sup> Cf. Macalister, *Gezer*, i, p. 77 f.

chamber which was used as a sepulchre in the First Semitic Period. The floor was covered with a layer of lime, underneath which were two cup-marks. The bones here interred were deposited in halves of large jars divided longitudinally. These jars were neither large nor stout enough to hold a corpse, and they must accordingly have been placed in the jars after

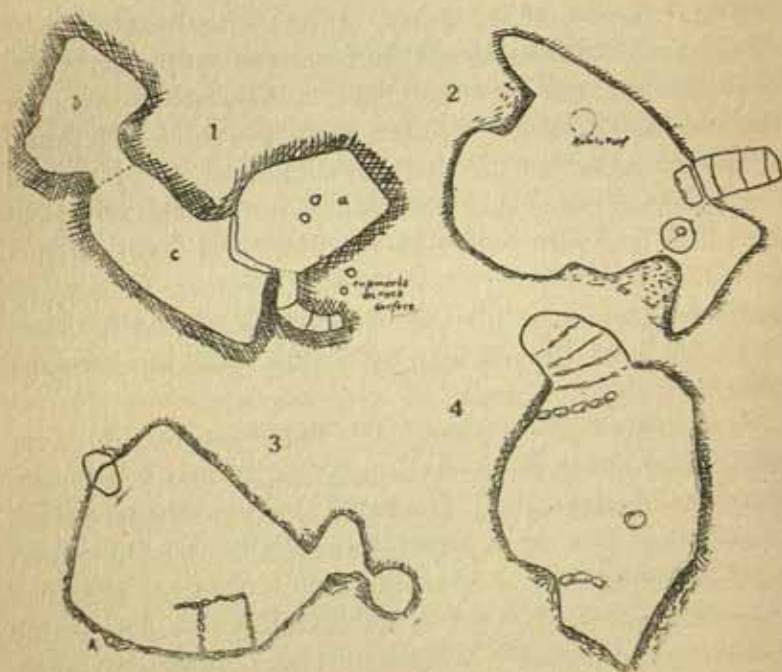


FIG. 91.

the disappearance of the flesh. The bones were found in a broken and disordered condition.

But as a rule the corpses themselves were placed in a crouching position in the centre of the cave, and around the wall of the cave a number of vessels, large and small, were deposited.

The style of pottery discovered in the burial-chamber



just described is essentially characteristic of the First Semitic Period.

Large wine-jars would appear to have been the commonest deposit, and these often contained a small jug which served as a ladle. They were in nearly all cases found standing upright, which indicates that they were filled when placed in the tomb, though it is odd that in no case were their mouths closed with a stopper.<sup>1</sup> Some of these large jars, however, were found lying on their sides, while others were found upside down. It seems probable that the nourishment placed in the graves for the sustenance of the departed was generally of a liquid character, as one would expect to find more evidence of solid food if such had been the nature of the contribution. Perhaps this is due to the fact that liquids are less material in character, and therefore were regarded as a more fitting form of nourishment for the deceased.

As we have already seen, the caves used for sepulture by the earliest Semites are always adaptations of caves occupied by their predecessors, but some of the caves thus used can never have been habitations of the living. Such, for example, is a dome-shaped chamber discovered at Gezer.<sup>2</sup> It is 6 feet 6 inches high, 17 feet long, and 11 feet broad. A hole in the roof is the only entrance thereto, and consequently it cannot at any time have been used as a dwelling-place. A number of very early sherds and some well-wrought flints were found in this chamber, and presumably ante-date the skeleton which was found under the entrance.

In Fig. 91 (2) we have the plan of another burial-place of the First Semitic Period. Access is gained to it by means of a flight of steps, and it consists of two chambers, the larger of which is nearly 29 feet long, and has an average height of about 6 feet,

<sup>1</sup> Cf. *Gezer*, i, p. 80.

<sup>2</sup> Cf. *ib.* i, p. 289.

the smaller measuring 8 feet  $2\frac{1}{2}$  inches by 4 feet  $11\frac{1}{2}$  inches and only 3 feet  $11\frac{1}{2}$  inches in height. A number of bowls, jars, and saucers were ranged round this chamber, and the deceased was buried at its entrance. Only fragments of the latter's bones were discovered, but sufficient to indicate from their character and their relative position that the body had been buried in the usual contracted position. Under the earth which was found to conceal the human remains was a pit cut in the rock measuring  $3\frac{1}{2}$  feet across and  $1\frac{1}{3}$  feet in depth. At the bottom of this pit was a small cup-mark, having a diameter of 10 inches. This is no doubt an olive-press, and belongs to the time when the cave was inhabited by living people.<sup>1</sup>

The plan of another cave, also at Gezer and similarly used by the earliest Semites as a sepulchre, is seen in Fig. 91 (3).<sup>2</sup> This cave, which consists of a large, irregular chamber, appears to be of natural rather than artificial formation. It has no staircase, the entrance being a hole in the roof. A tower of the second city wall is built over the mouth of the cave, and the use of the cave as a burial-place is consequently of earlier date.

The corroded remains of a skeleton were found on the south side of the cave, the arrangement of which indicated that the body had been buried in an extended position: it was fenced in by stones like the bodies of certain distinguished (?) people buried in the crematorium (cf. p. 306). As usual, the tomb contained a number of vessels, the most noticeable of which are a series of small vessels, about 2 inches high and painted with a fret of red lines. Some carnelian beads, identical with those found associated with the secondary burials in the crematorium, were also brought to light.

In the last two examples the rock-chambers were

<sup>1</sup> Cf. *Gezer*, i, pp. 103, 104.

<sup>2</sup> Cf. *ib.* i, pp. 107 and 108.



apparently only used for the interment of a single individual in either case, and therefore, while offering certain parallels to what was observable in the crematorium, they differ from it in this respect. Before leaving this period, there is one more burial-cave which deserves mention even in this cursory review. The remarkable cave of which a plan appears in Fig. 91 (4) is 31 feet 4 inches long and has a maximum height of 7 feet 1 inch; it was filled with earth up to within 3 feet 3 inches of the roof. This earth contained broken fragments of pottery and a number of bones, some animal and some human. The animal bones comprised a dog's skull, a part of a donkey's jaw, and some belonging to a cow—the remains of a sepulchral feast, funerary offerings, or a sacrifice.

The human remains represented five adults and one child. They were laid in a crouching position, each on a platform of stones. There was about 2 feet of debris between the remains and the surface of the rocky floor. There was one cup-mark in the floor of this cave. With the exception of some small pots of the type represented in Fig. 63 (5), the pottery discovered in the debris could not be definitely associated with the human remains. Four pear-shaped mace-heads were discovered, two under a skeleton in the centre of the cave [cf. p. 168 and Fig. 43 (7) (8)], the other two being each associated with one of the other interments in the cave.

In the Second Semitic Period, as in the preceding period, already existing caves are used as tombs, while another class of tombs consists of caves specially hewn for the purpose. A good example of the former class is afforded by the "High Place Grotto Sepulchre" at Bethshemesh.<sup>1</sup> It immediately adjoins the High Place,

<sup>1</sup> Cf. Mackenzie. *P. E. F. Annual*, 1912-13, p. 40 f.

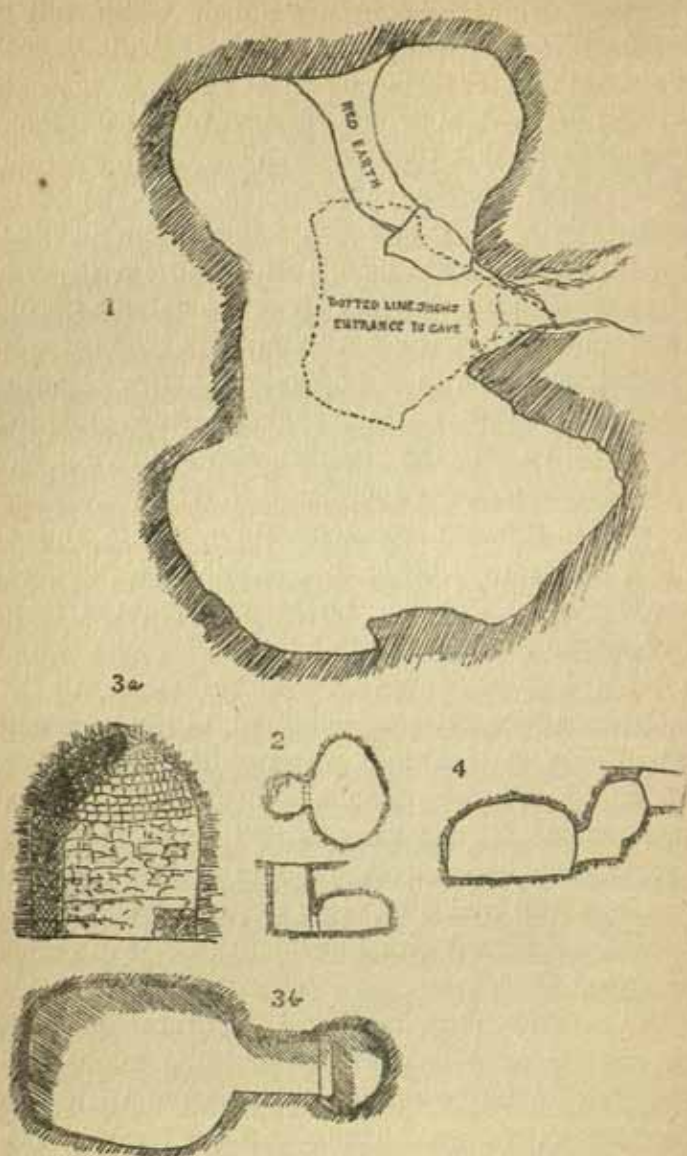


FIG. 92.



hence its name. It is irregular in shape [cf. Fig. 92 (1)], its greatest length being just under 19 feet and its greatest breadth about 14 feet. It varies considerably in height, but is specially low near the entrance, where it is in some parts as low as 2 or 3 feet above the natural floor. The pottery and other objects recovered indicate that it belongs to a period at all events anterior to the era of the Eighteenth Dynasty in Egypt.

Another cave-tomb of somewhat later date, but also for the greater part at least belonging to the Second Semitic Period, is the East Grotto Sepulchre at Bethshemesh. That it is later than the "High Place Grotto Sepulchre" is shown by the presence of Cypriote pottery of the Tell el-Amarna Period, which is not found in the former.

The specially hewn tombs of the period as a rule consist of a cylindrical excavation in the rock, carried down to a depth of about 6 feet 6 inches, and tapering from the top to the bottom. The diameter of the mouth of the shaft at the orifice averages about 6 feet 6 inches, the bottom measuring about 5 feet across. In the lower part of the shaft a low, narrow rectangular door admits to a small room, usually oval in shape.

A good example of one of these shaft-tombs<sup>1</sup> is that of which the plan is shown in Fig. 92 (2). The shaft measures 8 feet  $\frac{1}{2}$  inch in depth and 6 feet 4 inches in diameter, and the irregular chamber at the bottom measures 10 feet 6 inches by 11 feet 2 inches by 3 feet 10 inches. The bones had decayed to dust, and it was impossible to determine how many bodies had been buried in this tomb. The presence of the fine collection of bronze spear-heads, some of which are shown in Fig. 47 (2)–(6), indicates that it at all events contained the remains of a warrior.

Two interesting shaft-tombs belonging to about the

<sup>1</sup> Cf. Macalister, *Gezer*, i, p. 301; iii, Plate LVI, 1.

same period were discovered at Megiddo.<sup>1</sup> One of these is shown in Fig. 92 (3). The one here illustrated lies some 26 feet or more below the surface, and measures some 8 feet 6 inches by 7 feet 6 inches, while the height only averages about 5 feet 3 inches. It is approached by a passage 5 feet 3 inches long, about 2 feet 8 inches broad, and from 2 feet to 2 feet 4 inches high, the entrance being in the west wall. The vaulted roof is constructed of dressed ashlar; there is no key to the vaults in either of these tombs, its place being taken by a large stone slab which could be removed from time to time to admit offerings for the dead. This, however, evidently proved troublesome, for one of the covering stones has been perforated with a hole some 8 inches in diameter, the orifice widening downwards. This contrivance obviated the necessity of removing the stone itself on each occasion.

The tomb here shown was found to contain five burials, while its companion contained more. Apart from those of two children of from twelve to fifteen years of age, all the skeletons belonged to men or women, whose average height was apparently about 5 feet 4 inches. With one exception, they were all buried in a contracted position. The one not so buried was laid at full length on a pile of small stones; scarabs mounted on gold rings adorned his fingers, and he must evidently have been a person of some distinction.

Sometimes the shaft is not round but rectangular,<sup>2</sup> as in the example given in Fig. 92 (4). Its cross-dimensions are 4 feet by 4 feet 3 inches, and its depth is 3 feet 2½ inches. At the bottom of the shaft there is a small doorway leading to an antechamber, which

<sup>1</sup> Cf. Schumacher, *Mitt. und Nachricht. des Deutsch. Pal.-Ver.*, 1906, p. 18 f.

<sup>2</sup> Cf. Macalister, *Geser*, i, p. 304; iii, Plate LVI, 7.



by means of rude steps and a slope in the floor leads down into the tomb-chamber proper. The antechamber measures 6 feet  $8\frac{3}{4}$  inches by 7 feet  $4\frac{1}{2}$  inches, and is 8 feet  $5\frac{3}{8}$  inches high. The doorway between the antechamber and the tomb-chamber is in the form of a low arch and had been blocked with large stones. The tomb-chamber is a beehive-shaped room, measuring 13 feet  $8\frac{1}{2}$  inches in length, 12 feet  $1\frac{5}{8}$  inches in breadth, and 7 feet  $6\frac{1}{2}$  inches in height.

Occasionally these rectangular shafts are of considerable size: thus in one case the cross-dimensions are as much as 8 feet 6 inches by just under 6 feet. The tomb in question contained a large number of hairpins and other small objects, together with some Twelfth and Thirteenth Dynasty scarabs. Professor Macalister is of opinion that we have here an example of an Egyptian burial. Very possibly the rectangular shape of the well is also due to Egyptian influence.<sup>1</sup> Perhaps this is the burial-place of some important Egyptian official, and that is why he has been accorded an Egyptian burial. The large labyrinthine cave at Gezer, which was apparently used by Egyptian colonists as a sepulchre, has been already described. The human remains actually discovered were of the scantiest character, and the chief interest of the cave lies in its formation, the system of cup-holes in the platform above, and the rich harvest of pottery and objects of all kinds which it yielded.

The tombs of this period, like those of earlier date, were found to contain all kinds of funerary offerings, including not only food and drink, and the vessels containing the same, but also weapons, objects of personal adornment, and lamps, which now make their first appearance. As a rule all traces of food had disappeared,

<sup>1</sup> Cf. Vincent, *Canaan*, p. 217; Perrot and Chipiez, *Histoire*, i, p. 185.

but in some cases sufficient remained to make it possible to determine the nature of the offering. Thus one vessel proved to have once contained cooked joints of mutton. Sometimes a bowl was placed upside down over the nourishment thus piously provided, presumably with the idea of keeping it warm. In another case a small bronze knife was thoughtfully placed on the top of the food, doubtless to enable the deceased to cut it up to his taste. The large jars were originally filled with some beverage, and in nearly all cases a small vessel for drawing the liquid out was found either near or within them. The bronze weapons include daggers, javelin-points, and lance-heads. The tombs in which the latter were found of course formed the last resting-places of men. In the graves of women, on the other hand, hairpins, articles of jewellery, and objects of that character were deposited. It is impossible to say whether the corpses were laid naked in the tomb; there is no definite evidence of the use of shrouds or clothing, but its absence may easily be due to the destructibility of wearing materials of any kind.

In the Third Semitic Period, as in the foregoing, the cave-tombs are either adapted from caves already existing or else hewn specially. In the majority there is only one chamber, but sometimes there are two, and in a few instances three. In cases where there are three rooms, they are either arranged *en suite* or else the two inner rooms open independently into the entrance chamber. There is an opening cut in the roof, possibly merely for the removal of the quarried material. Access to the cave was gained either by a simple drop—the roof being here intentionally lowered—or else by a sloping gradient, or else by three or four small steps or “toe-holds” cut in the side of the chamber beneath the doorway. Where the doorway is cut in the wall, it is high up,



and there is in these cases always a drop to the floor. The doorway was blocked by a pile of large stones wedged into it and packed with earth. The bodies are carelessly deposited, and, generally speaking, there are no regular graves. In a few cases rude shelves have been cut in the sides, but there seems to be no evidence that they were destined for the reception of the corpses. Sometimes pits have been excavated in the floor, into which perhaps the remains of earlier interments were promiscuously thrown. The bodies in tombs which had been long in use were not infrequently piled one above the other in layers. There is an abundance of vessels for food and drink, as in the preceding periods, but though more numerous in this period, they are of smaller size. Lamps are also very common deposits.

A good example of the adaptation of an already existing cave for the purposes of sepulture in this period was discovered at Bethshemesh.<sup>1</sup> The cave in question is in origin a natural grotto, but has been artificially enlarged and transformed. The natural opening on the north side was walled up and a funnel opening was cut through the roof.

Probably belonging to about the same chronological period are the five "Philistine" graves at Gezer.

The contents of course afford the chief reason for regarding them as Philistine.<sup>2</sup> Four of these graves consist of rectangular structures varying from about 6 feet 9 inches to 9 feet  $\frac{1}{4}$  inch in length, from 2 feet  $4\frac{3}{4}$  inches to 3 feet  $3\frac{1}{2}$  inches in breadth, and from 3 feet to 4 feet  $3\frac{1}{8}$  inches in depth. They were lined with plaster or cement, and were covered with four or five

<sup>1</sup> Cf. Mackenzie, *P. E. F. Annual*, 1912-13, pp. 52, 53, Plate IV.

<sup>2</sup> Cf. Macalister, *Gezer*, i, pp. 289-300; and J. L. Myres in *P. E. F. Q. S.*, 1907, p. 240.

stone slabs. There was only one interment in each grave. The bodies are those of a girl, about eighteen years old, a man about 5 feet 10 inches tall and about forty years of age, a woman, and a person whose sex was apparently indeterminable.

The fifth "Philistine" interment is that of a tall man, 6 feet 3 inches high. His head is turned eastwards. No building was erected round this skeleton, but the associated objects show that this is not to be regarded as any mark of inferiority. A whole sheep was placed under his knees for nourishment, a gold ring was placed beside his neck, and a silver mouth-plate lay on the teeth of the skull, while other objects were also buried with him.

#### ISRAELITE PERIOD.

The line of demarcation between the tombs of the Third Semitic Period and those of the Fourth Semitic Period is very indeterminate. Both the interments and deposits of the later period are of the same general type, but as a rule the caves are smaller, and towards the end of the period divans or benches round the walls for the deposition of the bodies were all but universal.

One of the most striking differences between the late Semitic tombs at Gezer and those of earlier times is the disappearance of a side entrance and the adoption of a roof entrance, consisting of a hole, generally round, but sometimes oval or rectangular, cut through the ceiling. This hole generally does not exceed 3 feet 3 inches in diameter, and is always found towards one of the extremities of the tomb, never in the middle (cf. Fig. 93). The side entrance was not indeed totally abandoned, but when it occurs the sill is not on a level with the floor of the tomb chamber, but some way up in the wall, from which the descent to the floor had to be made



without the aid of a step. The hole entrance through the roof was, however, far more common. The part of the ceiling where the hole has been cut is generally lower than elsewhere, as in the preceding period, but sometimes the floor beneath the entrance is raised, the object in both cases being of course to diminish the distance between the roof-hole and the floor as much as possible. Occasionally rude steps or an inclined plane are introduced to facilitate matters. The hole was no doubt closed on the outside by a stone slab, while vertical doorways, when they occurred, were closed by a heap of small stones, earth, or a stone slab, as the case might be.

These tombs are adaptations of natural caves. As a



FIG. 93.

rule they are more or less round, and have a diameter varying from 19 feet 6 inches to 29 feet. The roof is generally horizontal, though sometimes dome-shaped, and sometimes the cave is not entirely hollowed out, a portion of the rock being left in the middle to serve as a supporting pillar.<sup>1</sup>

The bodies were placed on benches or divans, which were not cut into the sides of the chamber, like the *arcosolia* and *kôkêm* of later days, but were formed by leaving the lower parts of the sides of the cave where it was proposed to lay the dead unexcavated, natural rock benches thus resulting. This of course curtailed

<sup>1</sup> Cf. Macalister, *Gezer*, i, p. 311.

what would have been the normal floor area of the tomb chamber, a drawback obviated in the later *arcosolia* and *kôkîm*. The height of these divans varies from about 1 to 2 feet and the breadth averages about 3 feet. The bodies were generally placed on their left sides, the knees being drawn up towards the chin. There seems to have been no importance attached to the orientation of the bodies at this period. They were either deposited on the bare rock or else on a layer of small stones. Stones, again, formed their covering, a little earth being thrown over the whole.

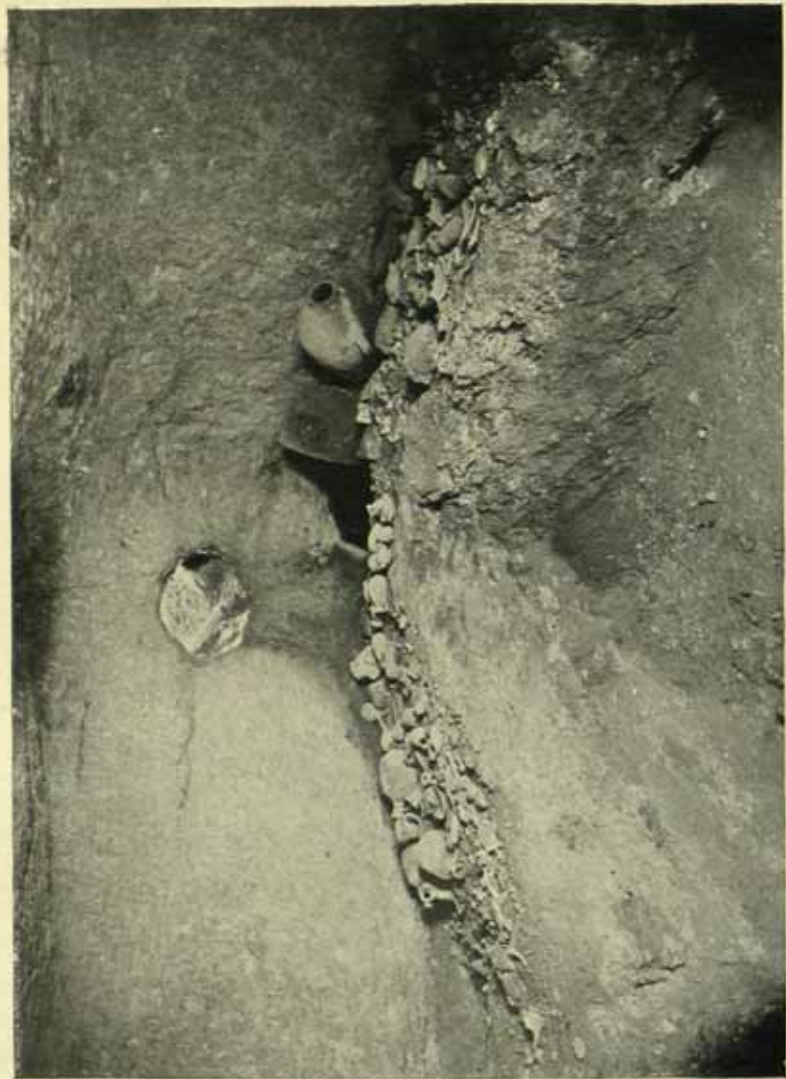
In some of these tombs, cavities are observable in the floor, and occasionally the benches themselves were found absolutely unoccupied, while the human remains are found in the cavities in the floor. In one tomb, a cavity of this description measuring about 3 feet in diameter and about 1 foot 6 inches in depth was found to contain some six skulls, as well as other human remains of a nondescript character.

The rock-cut chamber tombs of the North-West Necropolis at Bethshemesh have a façade entrance with a regular small window-like portal closed by a stone slab.<sup>1</sup> The portal is of door-shape, and a more or less cylindrical stone block is set against the door to keep it in position. These stone blocks have precisely the same appearance as the *bactyls* or *maṣṣebās* of the High Place at Bethshemesh, and accordingly, as Dr. Mackenzie suggests, they may have been used in funerary ritual to call down the spirits of the departed at memorial feasts in their honour.<sup>2</sup> On the other hand, of course, they may have a yet higher religious significance, the gods who were either identified with, or more probably believed to inhabit, these stones being themselves respectfully invoked and called upon to keep away the grave-robbers

<sup>1</sup> Cf. Mackenzie, *P. E. F. Annual*, 1912-13, p. 64.

<sup>2</sup> Cf. *ib.* p. 84.





(By kind permission of the Palestine Exploration Fund.)

TOMB-CHAMBER AT BETHSHEMESH.

(From *P. E. F. Annual*, 1912-13, Plate XXXVI.)





on the one hand, and perhaps the evil spirits on the other. The door is always of small size, and from the door one descends by two or three steps to the floor of the tomb.

The tomb itself is rectangular in shape, and on all three sides, exclusive of the side on which is the entrance, there is a divan or bench, which gives the tomb all the appearance of an Oriental house with a divan (cf. Plate XXI). Here again we see yet another example of the realism which is so characteristic of Oriental eschatology. The tomb was the dwelling-place of the deceased in the life after death, and as apparently they believed that life in that unknown world differed very little from life on earth, they naturally enough fashioned the habitations of the departed after the dwelling-places of the living.

Jar-burials were found in the strata of the Fourth Semitic Period, as, indeed, in those of all the Semitic Periods. The vast majority of these were either discovered in the walls or beneath the foundations of buildings, or else in the neighbourhood of a "High Place." In the former case they are doubtless examples of human foundation-sacrifices, while in the latter they are probably to be regarded as ordinary human sacrifices, and they will accordingly be briefly considered in Chapter IX.

Mention, however, may here be made of the twenty jar-buried infants at Taanach.<sup>1</sup> They were found in close proximity to a rock altar, which fact would *primâ facie* seem to support a sacrificial explanation, but on the other hand they were not near to any monoliths, as was the case at Megiddo and Gezer, and Père Vincent<sup>2</sup> and Professor Sellin may be right in

<sup>1</sup> Cf. Sellin, *Tell Ta'anek*, pp. 35-8.

<sup>2</sup> Cf. Vincent, *Canaan*, p. 194.

regarding them as the buried remains of children who had died too young to be interred in the family tombs. Mr. H. Wood<sup>1</sup> extends this theory and gives it a universal application to all the infant jar-burials, including those found in the vicinity of "High Places." He regards all these jar-burials as instances of the widespread practice of depositing the dead in jars, a custom which prevailed in early Egypt, Babylonia, Assyria, and elsewhere.<sup>2</sup> But at all events the instances of jar-

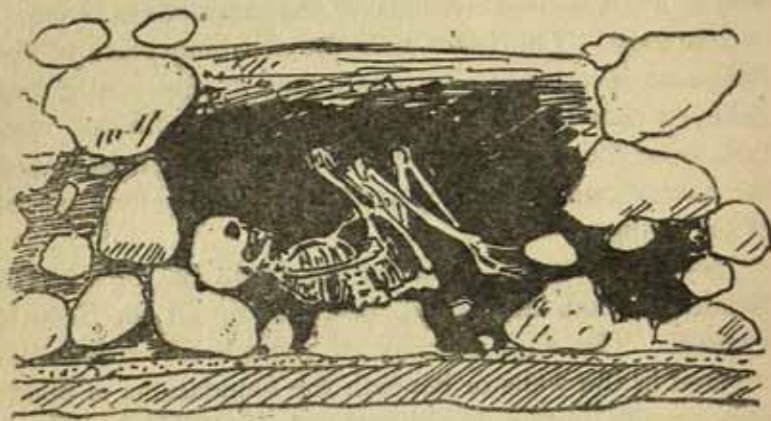


FIG. 94 (see Tell el-Mutesellim, Fig. 65).

burials discovered in the walls or beneath the foundations of buildings can hardly be explained on that hypothesis, and the sacrificial theory must, it would seem, be applicable to these, and is also probably applicable to those found in the vicinity of "High Places."<sup>3</sup>

An entirely different type of grave<sup>4</sup> is shown in

<sup>1</sup> Cf. *Biblical World*, xxxv, 1910, pp. 166, 167 ff., and 227-8 ff.

<sup>2</sup> Cf. Hilprecht, *Ausgrabungen in Bel-Tempel*, p. 38, Fig. 23; De Morgan, *Mémoires*, viii, Figs. 64, 65.

<sup>3</sup> Cf. Steuernagel and Schumacher, *Tell el-Mutesellim*, pp. 57, 58, and Fig. 65. Cf. the present writer's *Latest Light on Bible Lands*, 1914 (ed. 2), p. 227 f.

<sup>4</sup> Cf. Steuernagel and Schumacher, *Tell el-Mutesellim*, p. 60 f. and Fig. 75.



Fig. 94. On the floor of the room a layer of small field stones has been placed, the interstices between which were filled with ashes, charred wood, earth, and rubble, and on this bed lay the body of a child. The knees are contracted and the arms are raised, the body itself being on its back. It occupies a space of about 1 foot 10 inches long. It is enclosed by three layers of field stones, which together measure about 1 foot 4 inches in height. This grave must apparently have been erected immediately after the room was finished.

Another child's grave somewhat resembling the one

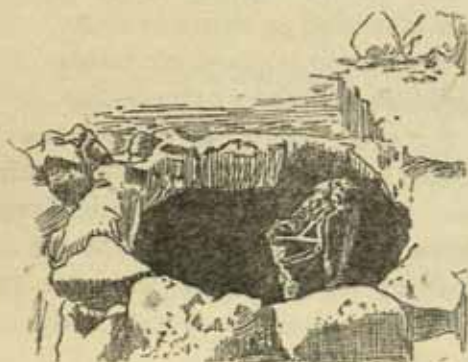


FIG. 95 (see *Tell el-Mutesellim*, Fig. 75).

just described, and also found at Megiddo, is shown in Fig. 95. It was built into the corner of a room in the northern castle, but not until the wall had begun to crumble and fall to pieces, and consequently it is not an example of foundation sacrifice. The knees are again contracted, but the arms are tightly pressed to the sides of the body. On either side of the corpse was a small jug. It is surrounded by a massive circular structure composed of large, slightly dressed stones, 12 to 16 inches high and some  $2\frac{1}{2}$  feet long. The diameter of this enclosure is about 5 feet 4 inches.

The grave had become filled with earth, building débris, and pottery fragments.

*Kôkîm*, or shafts cut in the rock, vertical to the sides of the tomb chamber, are the characteristic feature of the graves of the Hellenistic Period. Into these *kôkîm* the bodies were run head-foremost. The caves are for the first time square, well-cut chambers, and the doorways are similarly well-cut and rebated with a stone cover. The latter is almost invariably a movable stone slab. In one tomb at Gezer,<sup>1</sup> however, a swinging stone door was found. As heretofore, the majority of the tombs consist of one chamber, but sometimes they comprise as many as three. The heads of the *kôkîm* are round, square, or triangular. Sometimes the *kôkîm* are rebated at the entrance for closing slabs, as is the case with the Hellenistic tombs at Bêt Jibrin; those at Gezer, on the other hand, do not appear to have been closed. As a rule, they are only large enough to receive one body, though sometimes they are wide enough for two. In some cases they are so short that a portion of the body must have projected into the chamber.

In the best made tombs the *kôkîm* are not on the level of the floor, but on that of a bench running round the wall, about 1 foot high and 2 feet across. The ordinary number of *kôkîm* in a tomb is nine, three in each wall, except the wall in which the entrance is cut. Occasionally there is more than one row of

<sup>1</sup> The *arcosolium* is characteristic of tombs of the Byzantine Period. It is a shelf hollowed out of the wall of the tomb-chamber, and consequently differs from the bench or divan in the Israelite tombs, which was formed by leaving the lower part of the side of the cave unexcavated, a natural rock bench thus resulting. *Arcosolia* are all Byzantine; divans, on the other hand, are sometimes found in Maccabæan and Byzantine tombs, but these later divans are, as a rule, easily distinguished by being better made and more regularly hewn.



*kôkîm*, but that is exceedingly rare. In some tombs both *arcosolia* and *kôkîm* are found. Various ingenious devices were invented for frustrating the efforts of possible grave-robbers. False doors, concealed over-slabs, passages imitating *kôkîm*, and various other expedients were adopted to attain this end.

Lamps are the most important deposit in this period, of which a large number were found in nearly every tomb.

An interesting example of a Hellenistic tomb is that of which a plan is shown in Fig. 96. It is entered by a large square open vestibule, from which an arched

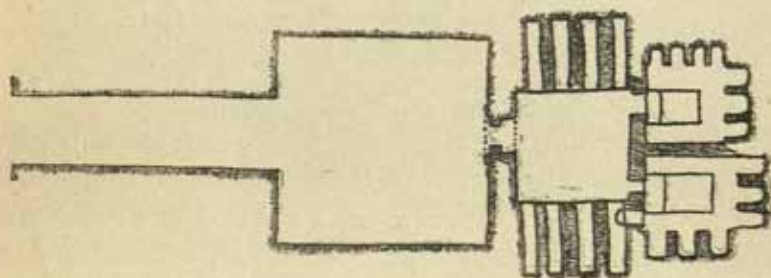


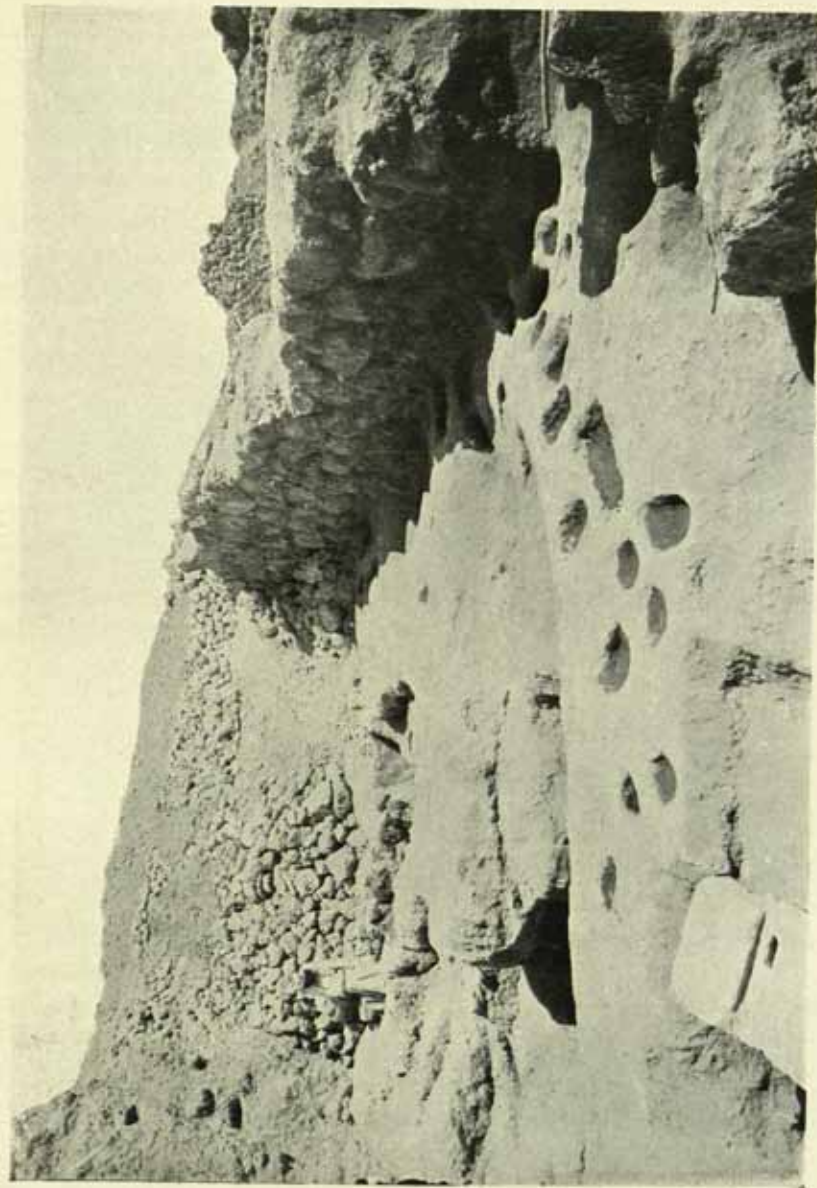
FIG. 96.

door leads into the tomb chamber. The latter contains eight *kôkîm*, four in each of the two side walls. The floor displays great irregularity, the *kôkîm* on the right side, which are on the same horizontal level as those on the left, being 3 feet 3 inches above the floor, while those on the left are only 1 foot 6 $\frac{3}{4}$  inches. In the back wall of the chamber there are two doors, each of which gives access to a small chamber. The receptacles in these two back rooms resemble *kôkîm* in shape, but they are too small to have served that purpose, and are probably meant for ossuaries. It was in this period that ossuaries came into use. When the body decayed, the bones were collected and

deposited in a box or ossuary of limestone, which was preserved in the tomb-chamber, and thus room was made for a new interment. As a rule these ossuaries are too small to have accommodated the remains of more than one person. They hardly ever contain anything else but the bones of the deceased, though occasionally a bronze bracelet or some small object of that character has also been placed in the box. The boxes are generally left plain, but sometimes they are decorated with painted or incised lines. The long bones are usually laid at the bottom of the box, the other bones being placed over them, though in some cases the bones have been carelessly thrown in without any attempt to arrange them in any order. Occasionally they are inscribed with the name of the person whose bones they retain, but that is extremely rare.

The cave tombs of the Byzantine Period are as a rule carefully cut and well made. As indicated above, the main distinction between Byzantine and Hellenistic tombs is the substitution of *arcosolia* for *kôkîm* (cf. above, p. 324, note 1). The body was carefully shrouded before being laid out upon the *arcosolium*. Ossuaries were not used, and accordingly, when the tomb was full, the new-comers were laid on the remains of the earlier occupants.





(By kind permission of the Palestine Exploration Fund.)

ROCK-CUT "PLACE OF SACRIFICE" AT GEZER.

(From Gezer, II, Fig. 47c.)





## CHAPTER IX

### WORSHIP AND PLACES OF WORSHIP

OF the religious customs of the Palæolithic inhabitants we know nothing, while our knowledge of those of their Neolithic successors is very scanty. It seems, however, fairly certain that natural or artificial caves were regarded as the abodes of their deities, a sufficiently intelligible theory in view of the fact that caves formed their own dwelling-places. These caves are not infrequently connected with cup-marks in the rock surface, and the sacred associations which came to attach to such places appear to have persisted into Semitic times, the old primitive sanctuary being re-adapted or made an appendage of the later Semitic "High Place." Caves specifically associated with "High Places" will perhaps be more conveniently discussed when dealing with the Canaanite sanctuaries, though doubtless their sacrosanct origin goes back into Neolithic times.

A very interesting example of a series of cup-marks of undoubtedly Troglodyte origin associated with caves beneath appears in Plate XXII. This large irregular rock surface was discovered north of the Maccabæan reservoir at Gezer.<sup>1</sup> It contains eighty-three cup-holes of varying sizes and shapes. The cups are for the most part cut on the high parts of the rock surface.

<sup>1</sup> Cf. Macalister, *Gezer*, i, p. 100.

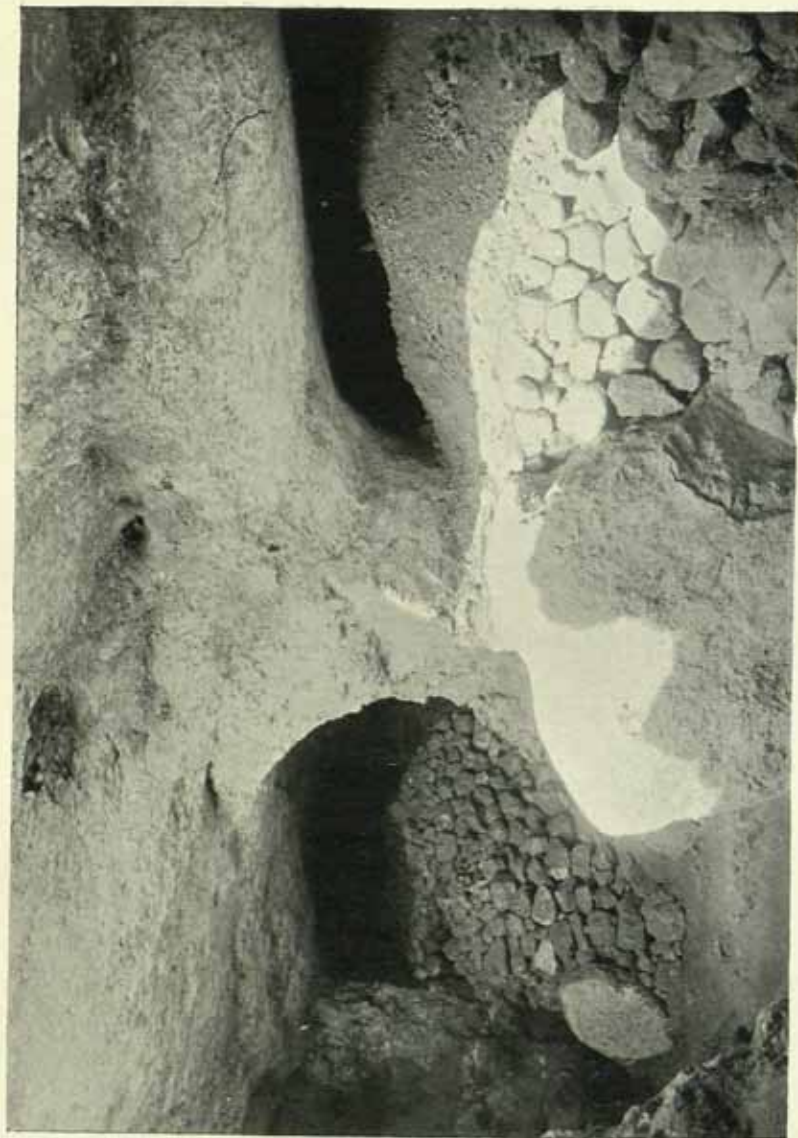
The largest, which is covered by a later wall, has a diameter of 8 feet and is 9 inches deep. Two more have a diameter of 5 feet 11 inches. In two cases at the western end of the system, cup-holes measuring 2 feet 11 inches across are partly surrounded with a circle of stones set on edge and cemented with mud. The remaining cup-marks are all small, and have an average diameter of 6 to 8 inches, and an average depth of  $5\frac{1}{2}$  inches. The larger cups are all circular, but the majority of the small cups are oval or even rectangular in shape. In two instances four cups are cut so close to each other that they break into each other and virtually form one cup.

That this system of cup-marks is the work of the Troglodytes is shown by the fact that the débris overlying the rock surface was found to contain very Early Semitic pottery. Underneath this rock surface are three caves with which the rock-cuttings above are associated, numbered 16 III, 17 III, and 17 IV, respectively.

Cave 16 III consists of a large rectangular chamber measuring some 36 by 38 feet, and roughly divided by a partition into two bays (cf. Plate XXIII). It is 11 feet  $5\frac{1}{2}$  inches high, this being the most lofty cave discovered at Gezer. The dimensions of the cave were apparently at one time greater, part of the rock roof having since fallen in as the result of an earthquake or some other catastrophe. A crude masonry wall was constructed for the support of the remainder. A flight of stone steps was cut in this wall, but as the lowest step is nearly 5 feet above the rock floor it would appear that the steps were made at a time when the floor of the cave was filled with silt up to about that level.

The original entrance is at the end of a passage in





VIEW OF THE INTERNAL DIVISION IN CAVE 16 III.  
(By kind permission of the Palestine Exploration Fund.)

(From *Gaza*, I, Fig. 34.)





the south-east corner, where access to the cave was gained by eleven rock-cut steps at the end of a passage leading off at the south-east corner (cf. Plate XXIV). This stairway bends at right angles at the top in a way not found in other caves. In the floor, which seems to have been carefully worked smooth at the outset, but was subsequently broken up and deepened, a large oval pit was sunk, presumably at a later date. This pit was probably used for the reception and retention of water.

Thanks to the nature of the rock, which is not so friable as usual, the impressions of the tools used in the excavation stand out with great clearness. From these tool-marks it is clear that flint implements were used.<sup>1</sup>

Cave 17 III<sup>2</sup> is a small hollow sunk in the rock, measuring 14 feet 2 inches by 9 feet. It is only half covered by the rock platform, the eastern half being open to the sky. The northern and eastern sides are lined with crude masonry. There are two shallow cup-marks in the floor of this cave.

Cave 17 IV measures 32 by 20 feet, and has a maximum height of 7 feet 11 inches. There are two entrances, one on the east and the other on the west. The eastern entrance consists of a high narrow doorway approached by a downward-sloping passage. The southern side of the doorway is built up with rubble set in mud. The western entrance is a "creep-passage," which opens just under the roof of the cave. At the northern end of the cave is an "apsidal projection," the floor of which is about 2 feet higher than the

<sup>1</sup> Cf. the similar but much later cave at Tell Sandahannah described in Bliss-Macalister, *Excavations in Palestine*, pp. 248-50, and the plan on Plate 102.

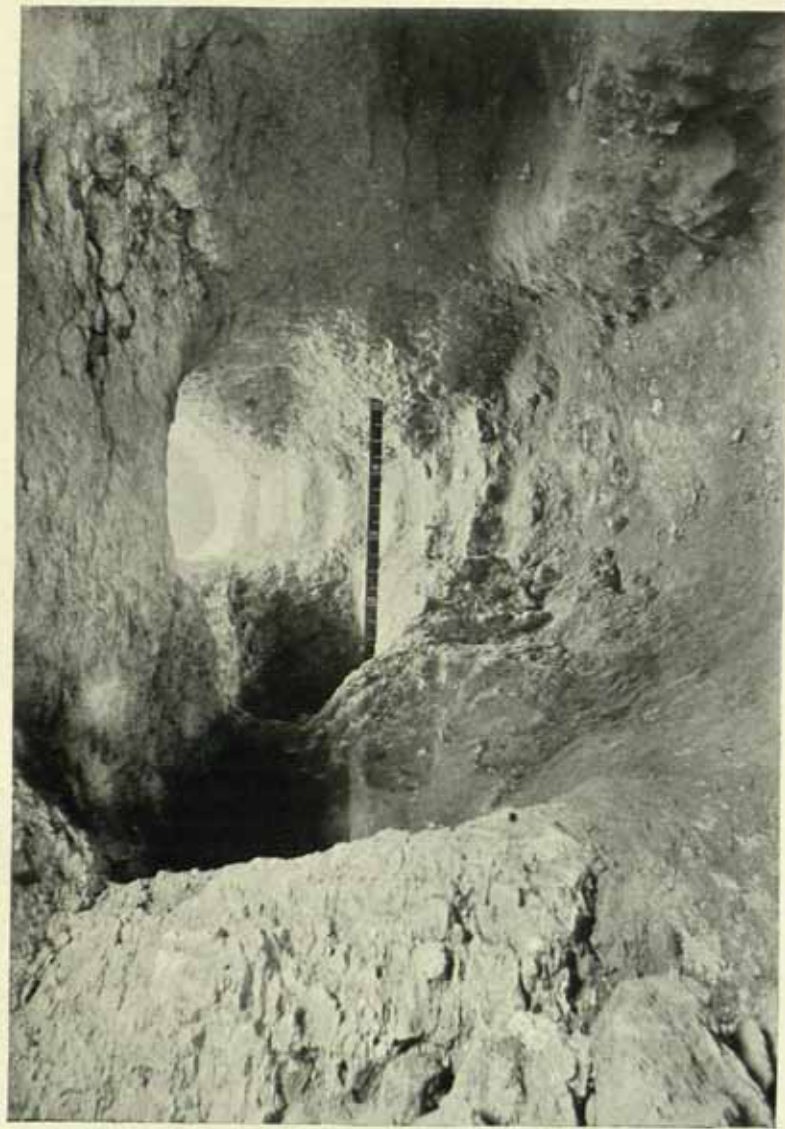
<sup>2</sup> Cf. Macalister, *Geser*, i, p. 102.

floor of the cave. Pig-bones were found here, possibly the remains of an ancient Troglodyte sacrifice. The detestation in which the pig was held by the Hebrews, and probably other Semitic tribes, was probably due to the sacrosanct character which it had acquired among the previous inhabitants. In the roof of this apse is an orifice 1 foot wide, which forms the lower end of a channel cut through the roof. This channel was clearly made for the passage of fluids into the grave. The cave could not have possibly been used as a cistern,<sup>1</sup> because it would not retain any quantity of water, and therefore in all probability the channel was made for the conveyance of sacrificial blood or drink-offerings to the deities who were the accredited owners or occupants of the cave. The roof is here nearly  $3\frac{1}{2}$  feet thick, and the orifice in the surface above, at the other end of the channel, is 2 feet 8 inches in diameter. A conduit cut in the rock surface, measuring  $4\frac{1}{2}$  feet in length and 1 foot 2 inches in breadth, leads into this orifice. This conduit appears to be connected with some of the cup-marks referred to above; at least they are so arranged that they may drain into this opening. Unfortunately none of the remains discovered in this cave belong to the Troglodyte Period. The cave was used as a kind of cellar in the Second Semitic Period, and the contents belong thereto.

There are other examples of cup-marks which are very possibly to be associated with the religious customs of the Pre-Semitic inhabitants of Palestine, inasmuch as there appears to be no other assignable reason for their existence. A notable instance was afforded by the excavations at Tell ej-Judeideh. In an area measuring 156 feet 9 inches by 117 feet, there are over a hundred cup-marks of various sizes, either

<sup>1</sup> Cf. Macalister, *Geser*, ii, p. 378.





(By kind permission of the Palestine Exploration Fund.)

STAIRCASE IN CAVE 16 TEL.

(From *Gazer*, I, Fig. 33.)

To face p. 39a.





isolated, grouped together, or connected by channels. One stone is remarkable for having twenty-five cups, mostly shaped like long narrow cylinders. Possibly this stone was an altar, and if that be the case, Macalister's reference to the rock-altars upon which Gideon and Manoah respectively made their offerings—a *libation* as well as a meat-offering in the case of Gideon (cf. *Judges* vi, 20; xiii, 19)—is very apt. A rock with cup-holes similar to this stone at Tell ej-Judeideh would retain Gideon's broth, and certainly prove a much more suitable altar than a bare-faced rock.<sup>1</sup>

Unfortunately no sacrificial remains and no *maṣṣēbās* were discovered in the vicinity of these cup-marks at Tell ej-Judeideh, and it is therefore in no way certain that they have any religious significance.

At Tell Zakariya and Tell eṣ-Ṣāfi similar small areas of rock surfaces with cup-marks were discovered, and it is possible that some of these played a part in the religious rites of the Pre-Semitic population, while at Tell Sandaḥannah was found a block of stone, upon the upper face of which a large cavity had been excavated. This block was discovered amid the débris of an ancient dolmen, and apparently had some religious significance in connection therewith. Cup-marks again are found associated with the megalithic remains in the neighbourhood of Beitin (Bethel), Anathoth, and at the famous Ḳabur Beni Isra'in ("the Graves of the Children of Israel") near Hizmeh, a village a short distance north of Jerusalem.

Again, at Tell el-Mutesellim (Megiddo), at the northern extremity of the mound, a surface of rock

<sup>1</sup> Compare the rock-hewn altar with one large and three small cup-holes in the upper surface discovered by Professor Sellin at Taanach (see *Tell Ta'anneh*, p. 34, Fig. 31).

with similar cavities was found.<sup>1</sup> Both round and oval cup-marks occur. Schumacher suggests that some of the cup-marks, which are undoubtedly of artificial formation, may have served as sockets for 'ashērūs, or sacred poles, or may have been used as stands for vessels containing offerings. The majority, however, were doubtless receptacles for libations (cf. 1 *Samuel* vii, 6). This rock surface was associated with a subterranean cave, as at Gezer and also Taanach,

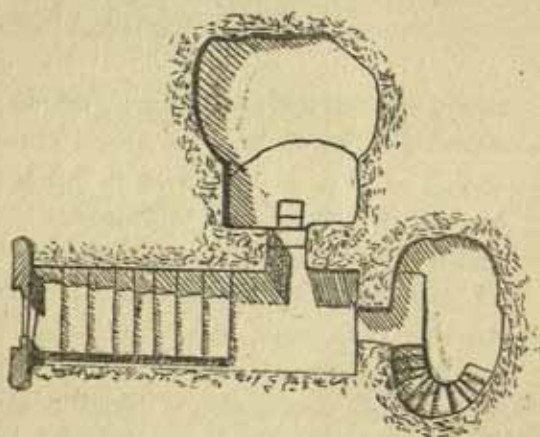


FIG. 97 (see *Tell Ta'anek*, Fig. 35).

and perforations in the platform communicated with the cave below.

Similar underground caverns<sup>2</sup> were discovered at Taanach beneath the fortress of Ishtar-washur (cf. Fig. 97). The fortified building in question is to be assigned to about the fifteenth century B.C., a date fixed by the discovery of a number of cuneiform tablets which approximately belong to the time of the Tell el-Amarna

<sup>1</sup> Cf. Schumacher, *Mitteil. und Nachricht. des Deutsch. Pal.-Ver.*, 1906, p. 12 f.

<sup>2</sup> Cf. Sellin, *Tell Ta'anek*, pp. 37 ff.; *Eine Nachlese*, pp. 7, 20-2, 31.



letters (see further, p. 301), but the two subterranean caves below are of much earlier date. In front and leading out of these two caves is a chamber or landing-stage hewn out of the rock. This landing-stage is approached by eight steps (cf. Fig. 98), and measures about 8 feet 10 inches by 5 feet 7 inches. At the top of these stairs is a rock surface, perhaps an altar. Of the two chambers to which the landing-stage gives access, one is almost rectangular, and is some 22 feet 2 inches long with an average breadth of 13 feet. This chamber lies about 3 feet

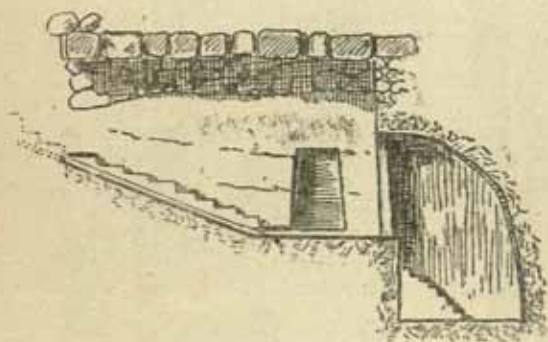


FIG. 98 (see *Tell Ta'anuck*, Fig. 36).

3 inches below the landing-place. The other chamber is elliptical in shape, and its principal axes measure roughly 21 feet 2 inches and 11 feet 5 inches respectively. It had evidently been used as a cistern, but that was not its original character. In one of the rock walls flanking the staircase is a channel or conduit, and it is supposed that this channel served to convey the blood from the sacrificial victims slaughtered on the altar above to the caves below. The absence of cup-marks at or near the commencement of the channel is, however, noteworthy.

But there can be little doubt that these excavations

were made by the Pre-Semitic inhabitants of Palestine and they were very probably used for religious purposes.

In Fig. 99 we have a plan of the "High Place" at Tell eš-Šāfi.<sup>1</sup> It was discovered at a depth of from 18 to 20 feet below the surface of the mound, and the factor which at once determined the nature and character of the structure as a whole was the discovery

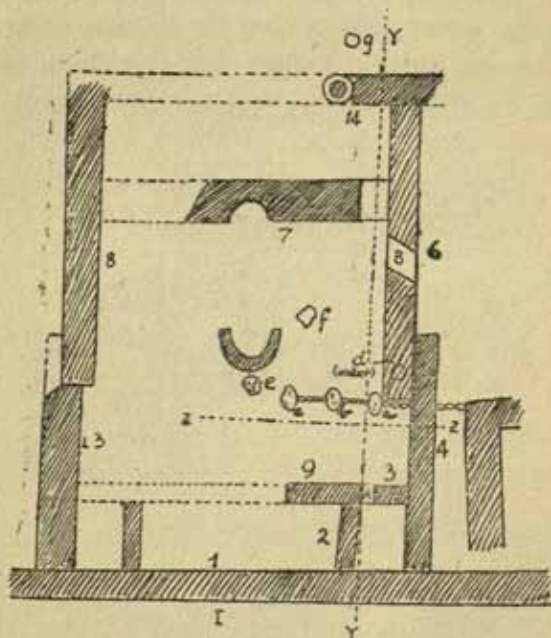


FIG. 99 (see *Excavations in Palestine*, Plate 8, 1).

of three *maššēbās* or standing stones within the building. They are made of soft limestone and are irregularly oval in cross-section. The first, marked *a* in the plan, is 5 feet 10 inches high, 30 inches broad, and 24 inches thick, and rests on two flat footstones placed one on the top of the other and measuring 24 by 20 inches. The footstones themselves are set on

<sup>1</sup> Cf. Bliss-Macalister, *Excavations in Palestine*, p. 31 f.



débris. The second monolith (*b*) is 6 feet 5 inches high, 27 inches broad, and 19 inches thick, and the third (*c*) is 7 feet 1 inch high, 31 inches broad, and 21 inches thick. Both of these are placed on one footstone each. These two monoliths are connected by a row of rough field-stones, above which is about 1 foot of débris surmounted by another similar row of stones. Between *a* and *b* a similar row of stones was found, *a* being likewise connected on its other side with one of the walls of the building, beyond which another row of stones following

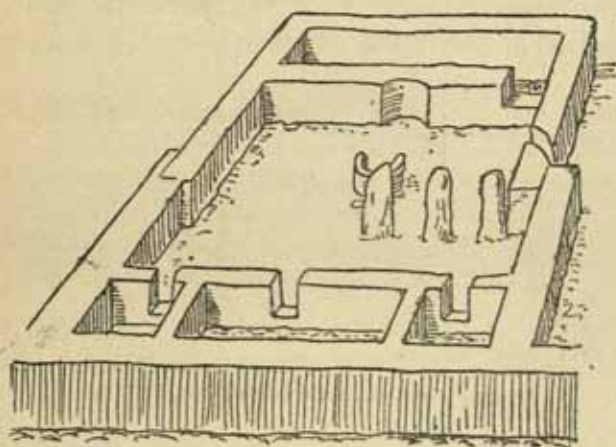


FIG. 100 (see *Excavations in Palestine*, Fig. 9).  
Isometric view of the "High Place," Tell es-Sāfi (restored).

the same line of direction was discovered. In the débris south of the *maṣṣēbās* a number of bones of camels, cows, and sheep were brought to light—without doubt the remains of animal sacrifices. Bones were also found under the footstone of *b*.

The building itself is complicated by the foundations of other structures which the excavators regard as the work of a later date; these are eliminated in the plan given, only those walls which are believed to form part of the "High Place" being there represented. In





stone having a diameter of  $20\frac{1}{2}$  inches ; this is evidently the footstone of a fourth *maṣṣēbā*, while what purports to be the *maṣṣēbā* was found incorporated lengthwise in a wall of later date. This *maṣṣēbā*, which measures some 6 feet 3 inches in length, was built in sideways as a bottom stone, and it was partly under this *maṣṣēbā* that the round footstone *e* was discovered. South of the building are some small chambers, of which (1) forms the back wall. From what remains of the front wall of these chambers, it would appear to have stretched right across the building, joining the eastern and western walls (4) and (13) at right angles, itself being parallel to (1) and (14).

The easternmost of these chambers, the lower part of the walls of which are complete, has a doorway at (A), the sill of which is only  $10\frac{1}{2}$  inches below the row of stones between *a* and *b*, an indication that the chamber in question belongs to the same period as the main hall.

Two or three feet east of the semicircle is a rude stone, pentagonal in shape and measuring 2 feet across (*f*). It is indented with three small sockets, 1 inch across and  $\frac{1}{2}$  inch deep. Incorporated in wall (6) was found another similar stone (*d*), measuring 30 inches across ; this, together with the three monoliths—*a*, *b*, and *c*—the footstone *e*, and the stone *f*, form a rude circle. If a connection between these six stones is to be presumed, it is possible<sup>1</sup> that the stone circle was an object of veneration before the walled temple was built, as *d* at all events must have fallen out of the system when the surrounding temple was built.

In this connection one may perhaps compare the sacred stone circle at Jericho (*Joshua* iv, 2–8, 20 f.), from which the well-known sanctuary Gilgal derived its name (*hag-Gilgāl* = "the (stone) circle").

<sup>1</sup> Cf. Bliss-Macalister, *Excavations in Palestine*, p. 34.

In the eastern wall (6) is a skewed opening (B), the foot-worn sill of which is  $1\frac{1}{2}$  inches lower than the sill at (A). In the doorway in wall (7) a similar sill occurs, which is, however, 8 inches lower than the sill at B. The difference in the levels of these sills is too slight to be regarded as any indication of difference of date, but is rather to be explained by the irregularity of the flooring of the chambers.

Whether the skewed opening in the eastern wall (B) is a doorway is a matter of doubt. Macalister's attractive theory is that the opening was purposely skewed to admit the rays of the rising sun upon the apse in wall (7) on a certain day of the year.<sup>1</sup>

Here, as at Gezer, Taanach, and other Palestinian sites, the *maššēbā* or sacred pillar stands out as the characteristic feature of the Canaanite sanctuary. No doubt some of the *maššēbās* discovered at the various sites in Palestine were erected either as tombstones, as memorial monuments, or as simple boundary stones, and it is only the concomitant circumstances which justify the attribution of a religious significance to certain stones, or groups of stones, e.g. the presence of cup-marks on their surface, of the remains of human or animal sacrifices, idols, or religious emblems in their immediate vicinity, or the alignment of a series of pillars in such a way as to defy any secular or quasi-secular explanation of their purport.

It is quite possible that some of the sacred stones themselves were originally boundary stones set up by disputants, who solemnized the compact by invoking the gods and uttering imprecations on any possible violator. The tangible and visible symbol of the agreement would then be almost inevitably infected with the religious odour of the agreement itself, and finally the sanctity

<sup>1</sup> Cf. Bliss-Macalister, *Excavations in Palestine*, p. 34.



of the stone as the symbol or dwelling-place of the god invoked in respect of that agreement would entirely supersede the merely acquired sanctity which it originally possessed as the outward sign and seal of a business contract.

In this connection it will be recalled that a *maṣṣēbā* was set up as a witness to the agreement between Jacob and Laban (cf. *Genesis* xxxi, 45, 51, 52).

The possibility of such an explanation in any particular case, of course, depends on all the surrounding circumstances.

*Genesis* xxxv, 20 provides us with a Biblical example of the erection of a *maṣṣēbā* over a grave, while *Joshua* iv, 2-8, 20 ff., affords an illustration of the use of *maṣṣēbās* to commemorate important events.

Some light is thrown upon the symbolical or realistic meaning which attached to the *maṣṣēbā*, when used for religious purposes, by the pages of the Old Testament. In *Genesis* xxviii, 18 we read that Jacob erected the stone which he had used as a pillow for his head as a *maṣṣēbā*, and "poured oil upon the top of it." The name of the place thus sanctified he called "Beth-el," and the stone which he "set for a *maṣṣēbā*" he designated as "Beth-elohim" (both = "the house"—i.e. abode—"of God"); it is thus clear that in early days the Hebrews considered the *maṣṣēbā* as a perfectly legitimate and fitting symbol of Yahveh. It is interesting in this connection to note that some of the *maṣṣēbās* discovered at Taanach probably belong to the Israelite Period, and were therefore possibly erected by Israelites. Whether or not their Canaanite predecessors regarded the *maṣṣēbā* as the abode of a god, or whether they actually identified it with a divinity, it is impossible to say, but if the theory that the cup-holes hollowed out in the vertical faces of *maṣṣēbās* mark the places where the

sacred stones were anointed with oil or smeared with sacrificial blood, and the cavities on the top were made for the reception of libations and drink-offerings, it seems more reasonable to suppose that the stones were regarded as abodes of the gods. If they had actually *identified* the *maššēbās* with divinities, it is hardly conceivable that they should desecrate them by such excavations, however praiseworthy the object of such excavations might be. It is, moreover, unlikely that the Semites, whose religion has always been essentially anthropomorphic, should have actually *identified* their humanly conceived gods with objects which bear no resemblance whatever to man, the archetype of their gods. In any event, it is probable that the religious ideas in regard to these standing stones which prevailed among the early Hebrews were precisely the same as those which obtained amongst their Canaanite predecessors.

Some would explain these stones as phallic emblems, the cup-holes which they bear being representative of the feminine principle. Perhaps that explanation applies to some, but many of the *maššēbās* are not conical in shape, and can hardly be intended for phalli, and accordingly that theory cannot be accepted as a general explanation of the *maššēbās* as a whole.

There can, however, be but little doubt that the Canaanites believed that the objects of their worship were *there*, and they are hardly likely to have indulged in metaphysical speculations as to the precise relationship subsisting between the stone and the god. The reality of their belief receives some confirmation from a Phœnician stele discovered in Sicily,<sup>1</sup> where we see three standing stones and a worshipper in front.

Later on, in the time of Isaiah and Hosea, the

<sup>1</sup> Cf. *Corpus Inscr. Semit.* i, 135.



*maṣṣēbā* was evidently still regarded as a fitting emblem of Yahveh, or at all events as an entirely desirable accessory in the worship of Israel's national God, for in *Isaiah* xix, 19 we read: "There shall be an altar to the Lord in the midst of the land of Egypt and a *maṣṣēbā* at the border thereof to the Lord"; while in *Hosea* iii, 4 it is taken for granted as part of the *materia sacra* used in the worship of Yahveh. By the time of the Deuteronomist, however, the use of 'ashērās and *maṣṣēbās* is strictly prohibited (cf. *Deuteronomy* xvi, 21, 22), their prohibition, of course, being due to the heathen rites and ceremonies with which they

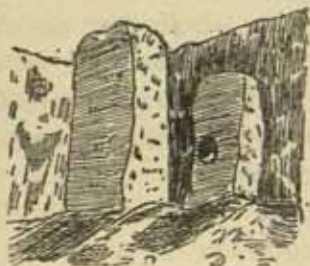


FIG. 102 (see *Tell Ta'anek*, Fig. 87).

were specifically associated on the one hand, and to the growth of spiritual conceptions among the Israelites on the other.

Two of these standing stones were discovered by Sellin at Taanach,<sup>1</sup> in the middle of the plateau covered by the early town (cf. Fig. 102). The two pillars in question were associated with remains belonging to the period of the fifteenth to the ninth century B.C. They were thus probably erected by Canaanites, but apparently continued to be used by the Israelites. The larger of the two, which measures about 4½ feet in height by 2 feet by 16 inches, tapers upwards, and has an oval cup-mark

<sup>1</sup> Cf. Sellin, *Tell Ta'anek*, pp. 68, 69, 104.

with an average diameter of about 15 inches and a depth of about 9 inches hollowed out upon its summit.

The smaller stone, which is about 33 inches removed from its companion, is only 39 inches high and 19½ inches broad. It has no excavation on its summit, but a large cup-mark about the middle of the face turned towards the larger monolith. About 7 feet 7½ inches north of these *maṣṣēbās* is a stone trough, measuring about 2 feet 1¾ inches by 16 inches, and in the space between this trough and the *maṣṣēbās* a considerable number of objects and vessels made of basalt were discovered, as well as a quantity of pottery. A wall consisting of rough stones, of which only two courses remain, enclosed the whole, but the various partition walls within the surrounding wall were too ruined for the excavators to make an accurate plan of the building. Sometimes *maṣṣēbās* appear to have been used for purely architectural purposes. Thus, the west part of an early wall found underneath the inner Canaanite wall at Jericho<sup>1</sup> consisted of three huge monoliths, the remainder of the wall being composed of four layers of field stones, attaining a height of 26 feet. The first of these monoliths is supported by a double layer of big field stones, and the other two rested immediately on the débris. It has a large number of irregularly distributed round holes of varying dimensions, and two grooves, which are probably artificial. The second of these is very badly preserved in its upper part, but the smooth surface of the lower part is well preserved. In the lower part there are two hemispherical cup-shaped hollows, the edge of which is a little higher than the surface of the stone. They are connected by a shallow channel, while a further channel leads from the upper hollow to the edge of the monolith. The rough surface

<sup>1</sup> Cf. Sellin-Watzinger, *Jericho*, Blatt 3 (b).



of the stone in the neighbourhood of the hollows is evidently due to the attempt to make their edges project above the surrounding surface. The third monolith resembles the second, but has no cup-holes. Possibly Professor Sellin is right in suggesting that these three stones originally formed a dolmen, the one with the two cup-holes resting on the ends of the other two. One thing, however, is quite certain, that their original use was something entirely different from their later adaptation for architectural purposes.

One of the most remarkable temples in Palestine is that excavated by Dr. Schumacher at Megiddo.<sup>1</sup> It is one of a series of buildings on the east of the mound, which together measure nearly 76 yards from north to south and nearly 49 yards from east to west. It essentially consists of a rectangular room, about 29 feet 4 inches long and 13 feet broad. It is divided by a wall into equal halves. The outer walls, which are constructed of large well-hewn and well-laid ashlar, are about  $3\frac{1}{4}$  feet thick.

The partition wall, on the other hand, consists of two large monoliths and a smaller standing stone, which are connected by wall-work composed of smaller blocks of stone. The two large monoliths or *maṣṣēbās* are respectively 7 feet 2 inches and 6 feet 11 inches in height, their cross-measurements being about 18 by 16 inches. They are separated by a space of 11 feet 1 inch. The foot of the monolith in either case rests upon a foundation of field stones, some 6 inches below the level of the plastered floor of the room. In the upper part of the northern *maṣṣēbā* there is a small hollow on its western face. The southern *maṣṣēbā*, on the other hand, has a comparatively large round hollow, having a diameter of 8 inches and a depth of about  $6\frac{1}{2}$  inches on

<sup>1</sup> Cf. Steuernagel and Schumacher, *Tell el-Mutesellim*, p. 110 f.

its eastern side, while on the top is an oval hollow measuring 8 by 4 inches, and having a depth of about 2 inches. The partition wall does not join the north and south walls of the room, but terminates about 3 feet 7 inches short of them. The corner pillar at its southern end is 3 feet 11 inches high, 2 feet 4 inches broad, and about 10 inches thick. This was not its original use, for it has a hollow, the peculiar shape of which suggests that this stone must have once been used for crushing olives. On the top of this monolith are two hewn building stones. The pillar at the northern end of the partition wall consists of five large building stones. In the space between the two large *maṣṣēbās* there is a door some 2 feet wide, flanked by two pillars resting on a stone foundation. The southern of these has a groove or slot which evidently formed part of the arrangement for shutting the door. Near the door there is a large stone slab resting on the wall—possibly an altar or table. Before this stone table there is a step some 6 inches high, by means of which one ascends to a kind of landing-stage, where there is a stone 2 feet 4 inches long, 19½ inches broad, and 8 inches high, in which a round hole, about 9 inches in diameter and 6 inches deep, has been carefully excavated. The upper surface of this stone lies some 2 feet 4 inches, and the platform some 2 feet 10 inches, below that of the stone table. Near the stone with the hole was a layer of burnt débris, which was found to contain the remains of animals. This layer was some 4½ inches thick. The floor of the room is paved with irregular stones resting on a bed of rubbish.

The outer walls of the temple closely resemble those in the palace described elsewhere (cf. p. 122). The method of structure consists of an alternation of binding and running stones; generally there are two binding



stones, which extend the whole of the thickness of the wall, i.e. 3 feet 3 inches to 3 feet 7 inches, followed by three running stones, the combined thickness of which is more or less commensurate with the thickness of the wall. The walls of the temple room are over 8 feet high in their present condition, but with the superstructure and roof the room must have been over 9 feet in height.

Let us now briefly consider the "High Place" at Gezer, which was one of the most important discoveries made on that site.<sup>1</sup> The principal features are two caves (which certainly ante-date the "High Place," but with which they are intimately associated), a series of *maššēbās*, and some subsidiary buildings.

The two caves are now connected by a narrow passage, but were originally independent (cf. Fig. 103). The entrance to the southern cave is on the north side, and consists of a narrow staircase with five roughly cut steps. The lowest step is developed into a platform [cf. Fig. 103 (a)] which is about 1 foot higher than the rest of the cave. To the east of the entrance this raised platform is narrowed to a small bench-like ridge, the interval between which and the wall of the cave has the same level as the floor of the chamber. The height of the roof on the eastern side averages 6 feet 1 inch, while the roof on the western side, where the platform floor is higher, is itself lower; the height of this part of the chamber is thus doubly curtailed, so that here it is impossible to stand upright.

The floor was covered with some 2 feet of earth in the "High Place" period.

A little to the east of the entrance is a very narrow crooked passage leading to a second chamber. This passage was formed by cutting a vertical shaft in the

<sup>1</sup> Cf. Macalister, *Gezer*, i, pp. 105-7; ii, pp. 381 ff.

rock between these two chambers, and then by breaking through the rock wall so as to open into each of the chambers. The passage is crooked and it is impossible to see from end to end, but it is just possible to burrow one's way through by lying flat. It seems clear that if the object of the passage had been to unite two *dwelling-*

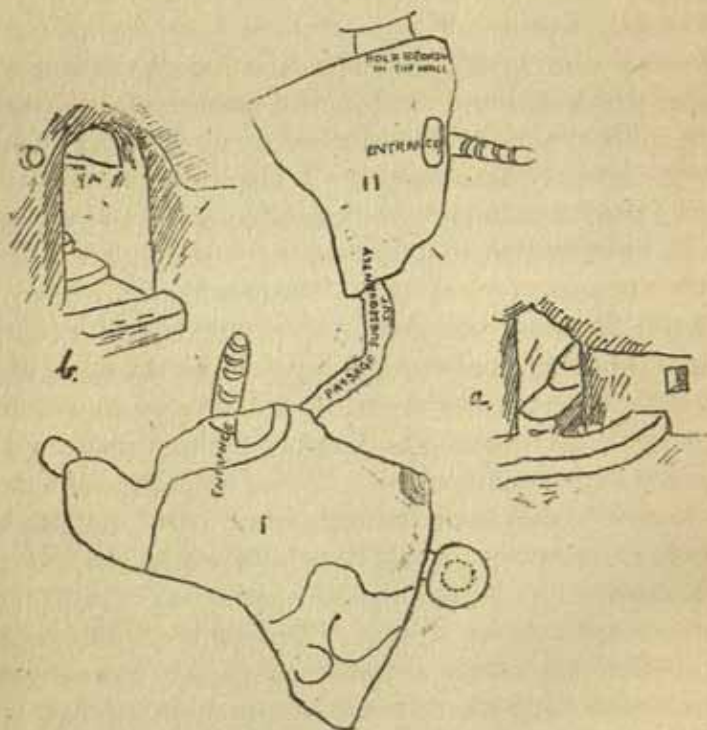


FIG. 103 (see Macalister, *Gezer*, Fig. 36).

*places*, it would have been rendered more commodious. It must therefore be assigned to the time when the caves were connected in some way or other with religious rites. The entrance to the second chamber was found blocked up on the inside, access to the cave being only obtainable by means of this passage. This chamber was therefore probably used as a kind



of secret chamber, or "Holy of Holies." Professor Macalister<sup>1</sup> points out how admirably suited these communicating caves would be for oracular jugglery, and they may possibly have been used for that purpose.

At the north-east corner of the first chamber there is a depression cut in the rock, some 2 feet deep. It was probably used for collecting water. South of this depression is a small hole in the wall of the cave, measuring some 3 feet 3 inches in diameter, leading to a circular dome-shaped cell having a diameter of about 6 feet 7 inches. The floor of this cell is about 1 foot 8 inches higher than the floor of the main chamber, the sill of its entrance being a few inches higher still. It had an independent external entrance through the roof, which was closed by a block of stone.

In this principal chamber were found the fragmentary remains of a man's skeleton, and also the skeleton of a new-born infant. The latter was deposited on a rude block of limestone, measuring about 1 foot 6 inches each way—perhaps a rude altar. The deposition of infants' bones here cannot well be dissociated from the similar deposits of infants' remains elsewhere within the "High Place" area.

The second cave is more or less triangular in shape, and has a maximum diameter of 7 feet 10 inches. The external entrance, which is on the east, consisted of a flight of steps, like the entrance to the first chamber. The steps are, however, wider and better cut, and the doorway is well formed [cf. Fig. 103 (*b*)]. The bottom step is a movable stone block, rising an inch or so above the level of the lowest of the rock-cut steps. This entrance was found carefully blocked up on the inside by a structure of large stones. Through the northern jamb there is a circular hole, to which presumably the

<sup>1</sup> Cf. Macalister, *Gezer*, ii, p. 385.

door was in some way fastened. The roof of this chamber is slightly lower than that of the first, but the floor is more uniform and there is no platform. On the northern side of the cave there is a large hole just under the roof; this hole had been blocked up with a large pile of stones on the outside surface of the rock.

The objects found in both these caves belong to the period when they were used as dwelling-places. The skeleton of the infant and the stone on which it reposed lay above the silt containing these Troglodyte remains, and belong to the time when the caves had been incorporated in the scheme of the Semitic High Place. Doubtless we have here an example of human sacrifice.

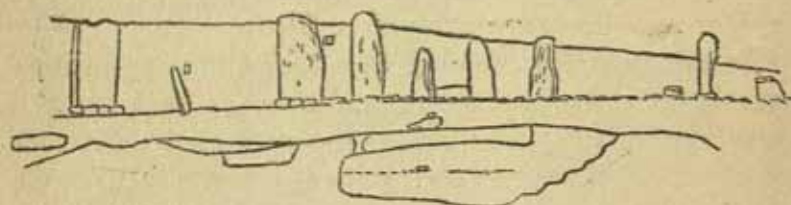


FIG. 104 (see Macalister, *Gezer*, ii, Fig. 477).

But the series of eight *maṣṣēbās* or standing stones<sup>1</sup> form the most striking feature in the "High Place" at Gezer, and in some ways the most remarkable of all the discoveries made on that site (cf. Fig. 104). The truncated stumps of two others, which had at some time been destroyed, were also brought to light. These ten *maṣṣēbās* were arranged in a line running north and south. The line is slightly curved, but no doubt it was intended to be straight. The stones, with one exception, are all made of the local limestone. They are rough and undressed, and in connection with this fact Macalister aptly compares *Exodus* xx, 25, where the Hebrews are prohibited from polluting their altar

<sup>1</sup> Cf. Macalister, *Gezer*, ii, pp. 385 ff.



stones by the use of tools (cf. also 1 *Kings* vi, 7). The fact, however, that artificial cup-marks occur on some of these *maṣṣēbās* shows that, at all events for this purpose, the use of tools was not regarded as a violation of the sanctity of the stone. They vary in height—the highest being 10 feet 9 inches and the lowest 5 feet 5 inches. Their breadth varies from 5 feet to 1 foot 2 inches, and their thickness from 2½ feet to 1 foot 3 inches.<sup>1</sup> The intervals between the stones also vary considerably, the largest interspace being 13½ feet and the shortest 2 feet 11 inches.

The ninth *maṣṣēbā* had been placed standing in a kind of socket, hollowed out of a boulder.

Underneath the first *maṣṣēbā* there is another stone, now prostrate. Were this stone set on end in its present position, it would stand about as high as the second pillar, i.e. about 5 feet 5 inches. Twin pillars have been found at Jerusalem, Tyre, and elsewhere, and it has been suggested that the "High Place" at Gezer had its origin in these two comparatively short monoliths, meant to suggest, represent, or embody a god and his goddess-counterpart.

It is perhaps noteworthy that the top of the second *maṣṣēbā* has several smooth polished spots upon it, spots of the character that the frequent and repeated kisses of pilgrim devotees are calculated to make.

In the top of the first *maṣṣēbā*, which is more or less rectangular in shape, there is a "groove (as though to receive a rope or chain), at the western end of which are two pockets on each side, as it were for a block or bar to which to secure the rope." The simplest explanation of the groove would be that it was made by the ropes used to haul the stone

<sup>1</sup> For the specific measurements of each, see Macalister, *Gezer*, ii, p. 386.

into position, but the fact that no groove of the kind is found on any of the other large monoliths militates against this theory.<sup>1</sup>

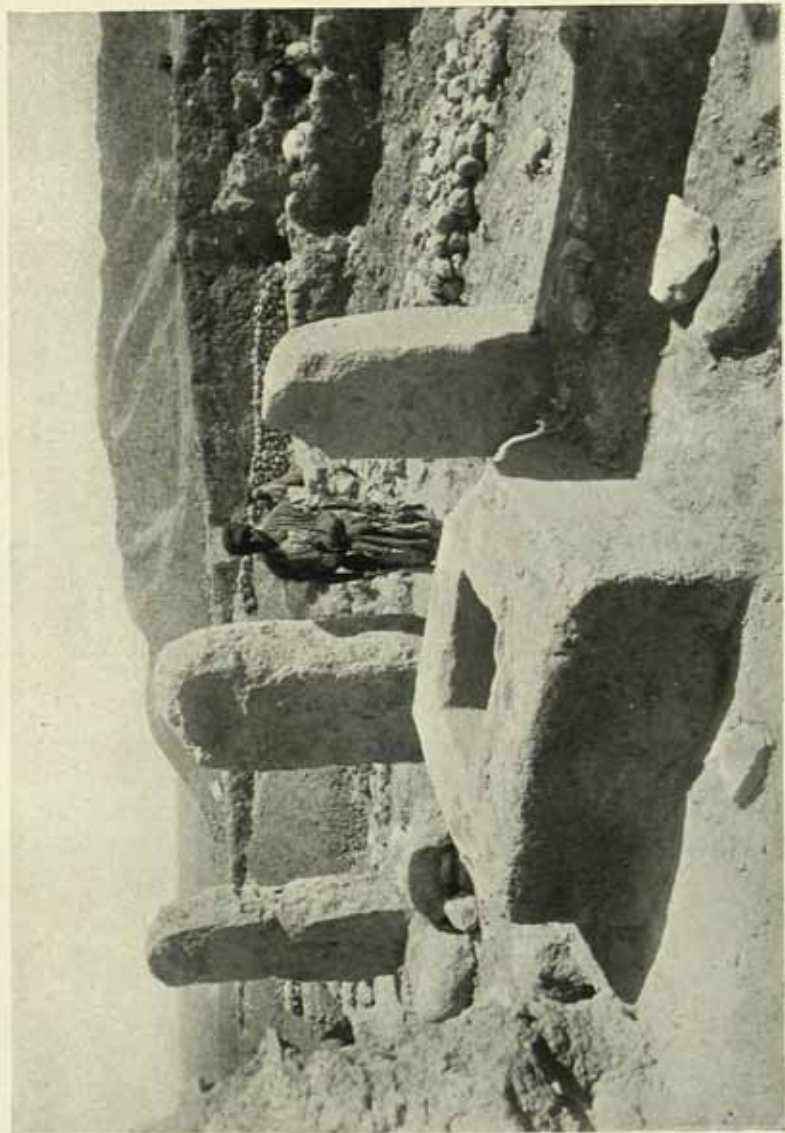
The western face of this monolith shows marks of blackening by fire near the base, while in the middle of that face, about a foot below the groove, there is a cup-mark. The third and fifth *maṣṣēbās* also have a cup-mark on their western faces, while the ninth has two cup-marks.

It is noteworthy that all the cup-marks appear to be on the western sides of the stones, and that the western sides of all the *maṣṣēbās* are distinctly smoother than their eastern. The seventh *maṣṣēbā* is not made of the limestone of the neighbourhood, but of a stone containing "certain minute crystalline formations not to be found in any of the other monoliths." Probably the stone in question was one of the *maṣṣēbās* of the "High Place" in another city, from which it was brought to Gezer, perhaps in the belief that the protection afforded by the local *numen* associated or identified with the stone would be thus removed from the enemy's city and transferred to Gezer.

The interval ( $13\frac{1}{2}$  feet) between the seventh and eighth pillars is wider than that occurring between any other pair of these *maṣṣēbās*. Perhaps this is intentional. Seven was the sacred number *par excellence* among all Semitic tribes, and possibly at one time the number of monoliths in the "High Place" was purposely confined to seven, the remaining three being added at a later date. If, on the other hand, the seventh stone, which, as we have seen, has a different *provenance* to the remaining *maṣṣēbās*, was in point of fact taken and brought to Gezer as a trophy, it seems more natural to assume that it was added to the

<sup>1</sup> For suggested explanations, see Macalister, *Gezer*, ii, p. 389.





(By kind permission of the Palestine Exploration Fund.)

MASSÉBAS AND SOCKETED STONE AT GEZER.

(From *Gezer*, II, Fig. 485.)

To face p. 196.





series on arrival, rather than to regard it as having been purposely selected as the completing stone in an original scheme of seven, unless, indeed, it was brought to Gezer before the idea of an alignment of a number of pillars had assumed any practical shape.

The number three was, of course, also regarded as a sacred number by the Semites, and the fact that the remaining *maṣṣēbās* number three may possibly have some significance. In this connection it will be recalled that there were three *maṣṣēbās* in the "High Place" at Tell eṣ-Ṣāfi, but it is very doubtful if this was the original number (see p. 337).

To the west of this alignment (cf. Plate XXV), occupying the space between the fifth and sixth monoliths, there is a large rectangular block of stone measuring 6 feet 1 inch across and 2½ feet in height. In the upper surface of this block a large rectangular depression has been hollowed out. This depression measures 2 feet 10 inches by 1 foot 11 inches, and has a depth of 1 foot 4 inches.

It is uncertain what purpose this stone block served. Five explanations have been suggested: (1) That it was an altar; (2) that it was a socket for an *'ashērū*; (3) that it served as a socket for a monolith; (4) that it was a place where the animals to be offered were slaughtered;¹ (5) that it was a laver.

In regard to the "altar" explanation, the absence of any trace of smoke-blackening on the stone itself or on the surrounding *maṣṣēbās* militates against that theory.

It is further perhaps worth noting the absence of cup-marks on the pillars in its immediate vicinity. Of course, it *may* have been an altar whereon offerings other than burnt-offerings were made, in which case the absence of smoke-blackening is readily accounted

¹ Cf. Lagrange, *Etudes sur les religions Sémitiques* (ed. 2), p. 175, Kittel, *Studien für hebr. Archäologie*, 1908, p. 132.

for, but that does not seem probable. The fact that the stone was certainly dressed and fashioned with metal tools has also been used as an argument in confutation of that theory, but the precise value of that argument is a little doubtful (see above, p. 348).

There are numerous objections to the second proposed explanation.

The '*ashērā*' was a sacred tree or pole erected by an altar.<sup>1</sup> The name is supposed by some to be identical with that of a goddess, but the existence of this goddess is a disputed point. Assuming, however, her existence, she was probably a Canaanitish goddess of happiness and good-fortune, and the sacred tree or pole was perhaps originally the symbol of the particular goddess from whom it derived its name, and possibly represented the shady grove with which her beneficent activities may have been associated.

Professor G. F. Moore<sup>2</sup> disfavours the view that the pole or mast was a conventional substitute for a tree, and adds that the only Biblical passage which appears to lend support to that view is *Deuteronomy* xvi, 21, and this alleged support depends upon an unsatisfactory translation. He contends that the rendering: "Thou shalt not plant thee an '*ashērā*—any kind of tree," can hardly convey the writer's meaning, because "in the seventh century the '*ashērā*' was certainly not ordinarily a tree," and he accordingly translates—"an '*ashērā*—any wooden object." The same scholar further refers to 2 *Kings* xvii, 10, where allusion is made to the erection of '*ashērās*' under *trees*, and argues that if '*ashērās*' were substitutes for trees, it is improbable that they should be placed underneath actual trees. But

<sup>1</sup> Cf. *Encyclopædia Biblica*, i, cols. 331, 332; Hastings, *Dictionary of the Bible*, i, p. 165; *The Oxford Hebrew Lexicon*, p. 81.

<sup>2</sup> Cf. *Encyclopædia Biblica*, i, col. 331.



one of the reasons for his own objection to the translation "'*ashērā*—any kind of tree" in Deuteronomy—"because in the seventh century the '*ashērā* was certainly not ordinarily a tree"—seems to afford a complete explanation to the supposed obstacle offered by 2 *Kings* xvii, 10. By this time, no doubt, the origin of the conventional '*ashērā* had been forgotten, and the pole was sacred *quâ* pole, and no longer as a substitute for a tree. Accordingly, the fact that in later days the then entirely conventionalized '*ashērās* were erected under trees is hardly an argument against the ultimate tree-origin of the '*ashērā*.

It has been suggested that the block of stone in question served as a socket for one of these sacred poles, but in the first place, the dimensions of the theoretical socket seem too large for any pole of likely size. Secondly, a sacred pole of this description would in all probability have been planted in the ground, in the same way as an actual tree, for which at this early age it was doubtless a recognized substitute. It is most unlikely that it should have been erected on a pedestal in the way suggested, and none of the passages in the Old Testament containing references to '*ashērās* lends any support to such a proposition. Thirdly, it is improbable that a socket for a pole would be rectangular in shape. Again, the absence of any trace of the friction which such a pole would necessarily make upon the upper edge of the socket is another objection. Lastly, the meandering channel cut on the upper surface of the stone seems inexplicable on this hypothesis.

The third explanation—that it served as a socket for a monolith—presents fewer difficulties, and obtains some support by the discovery of a square block of stone close by. This stone, the two ends of which have been broken off, measures 6 feet in length, while the cross

dimensions are 2 feet  $5\frac{3}{4}$  inches by 1 foot 5 inches, tapering to 2 feet 5 inches by 1 foot  $3\frac{3}{4}$  inches. The dimensions of the hole cannot have differed greatly from the dimensions of the bottom of the stone. If this is the true explanation, it may be compared with the ninth *maṣṣēbā*, which stands in a small circular vat.<sup>1</sup> But the comparison does not extend to details, the size, shape, and character of the stone block under discussion being all quite different from those of the small circular rock-cut socket of the ninth *maṣṣēbā*.

The provision of a *maṣṣēbā* with such a massive pedestal and the uniqueness of its position—outside the general alignment—would presumably indicate the peculiar sanctity of the stone thus honoured. This explanation is, of course, entirely conjectural, but at least more plausible than the *'ashērā* theory.

The fourth proposition—that it was a place where the sacrificial animals were slaughtered—does not seem inherently probable. If this were merely the place where they were killed, one would expect to find a yet more imposing monument near by—to wit, the altar on which they were actually offered in sacrifice. Of course, that is by no means an insuperable objection, but, on the whole, the “laver” theory seems the least improbable, whether used for washing the hands or feet of priests or worshippers, or for cleansing the sacrificial victims. It at once recalls the laver in the Tabernacle and also the lavers in Solomon’s temple. These, however, were all made of brass, but the much more ornate stone laver recently found at Jerablus, the Hittite centre, affords something in the nature of a parallel. The latter is supported, like Solomon’s, by two bulls.

There was no enclosure or boundary wall surrounding the “High Place” area, and apart from the north, where

<sup>1</sup> Cf. Macalister, *Gezer*, ii, p. 396.



it was bounded by the great inner city walls, its limits can only be vaguely determined. The precincts were thickly covered with small houses belonging to a later date, a date, that is to say, when the "High Place" had probably lost its sacred associations. Originally the "High Place" was in the middle of the town, and some indication as to the extent of the sacred area is afforded by the occurrence of these later houses in the same stratum as those of earlier date outside the prohibited area. Assuming this to be a reliable indication, the "High Place" enclosure apparently measured 150 feet from north to south and 120 feet from east to west. Within the area thus demarcated there are certain peculiar structures which very possibly were connected in some way with the "High Place." The most conspicuous of these subsidiary buildings are two circular structures found on the west of the row of *maṣṣēbās*, one at the north end and the other at the south end.

The northern one, which is the better preserved of the two, consists of a circular pavement of small well-set stones laid upon a substratum of earth from 1 foot to 1 foot 9 inches deep, and surrounded by a continuous wall, which was found still standing to a maximum height of 6 feet. The construction is made of field stones set in mud, and there is no attempt at regular coursing. The surrounding wall slopes outward from bottom to top, the diameter of the circular structure being 13 feet 8 inches at the bottom and  $16\frac{1}{2}$  feet at the top, the thickness of the wall itself being about 1 foot at the top, and ranging from about  $1\frac{1}{2}$  to 2 feet at the bottom. There is no door in the wall, and it is impossible to say what object the structure was destined to serve.

Within the enclosure were found a quantity of fragments of cyma-shaped bowls with wish-handles. This

Cypriote ware is common over the whole mound from about 1400 to 800 B.C. In the middle of the pottery remains lay a small bronze model of a serpent (cf. p. 201).

Its southern counterpart is somewhat larger, the diameter of its pavement being 18 feet 2 inches, but the surrounding wall has completely disappeared.

The remains of another peculiar structure of uncertain purpose were found to the south-west of the southern circular enclosure. They consist of two parallel walls of unequal length, united by a transverse wall at the south end. These walls are made of sun-dried bricks, and still stand to the height of some four or five courses.

On the other side of the *maṣṣēbās* and to the east of the caves already described is an ordinary rock-cut, bell-shaped cistern, with a rather wide mouth. This cistern is 16 feet deep, the usual filtering depression in the centre of the floor being 2 feet deep and having a diameter of 4 feet 8 inches.

The floor of the cistern was covered with about 2 feet of alluvial deposit, above which lay a stratum 1 foot 11 inches deep which contained bones and large stones intermingled. Over this again was another layer of alluvial silt, 3 feet 4 inches deep. Last of all there was the usual deposit of loose dry earth.

The bones comprised human bones as well as those of animals. The animals represented are the cow, the sheep, the goat, and the deer. The human bones represent fourteen men, two women, a child of about twelve years of age, and an infant. "They were mixed together in a way which showed that they had not been separated from one another by violence; but that the bodies had been allowed to float about in the water till the progress of decomposition caused the bones to drop asunder by themselves."<sup>1</sup> Accidental drowning is the most probable

<sup>1</sup> Cf. Macalister, *Geser*, ii, p. 401.



explanation of the discovery of single skeletons in cisterns ; but, as Macalister points out, the number of bodies here represented is too great to admit of such an explanation in this case, and they must rather be regarded as the remains of human sacrifices, just as the animal bones must be the remains of animal sacrifices. If this be correct, then the cave in question must have evidently served as "a receptacle for the bodies of unburnt sacrifices." The disposal of ashes was an easy matter, but if the body of the victim were not burnt, some means had to be devised for getting rid of it. The bodies, however, may have been deposited here in the first instance as offerings to the *numen* of the cave. Whether such was the case, or whether they had previously been offered in sacrifice in some other part of the "High Place" area, and were merely thrown here subsequently for sanitary reasons or general convenience, it is impossible to say.

Around the mouth of this pit there is a kind of irregular rocky platform, some 4 inches to 1 foot 3 inches above the surrounding rock surface. In this platform are a number of cup-marks and depressions. They are of various sizes, from small saucers 3 inches across to large cavities having a diameter of about 6 feet.

Further evidence of the practice of human sacrifice was forthcoming in the discovery of the remains of newborn infants buried in jars. The jars used for the purpose were usually large vessels with two handles and pointed bases. Jar-burials of this description were found all over the "High Place" area. The bodies were generally inserted head first, two or three small vessels being placed either inside the jar between the body and the mouth of this primitive sarcophagus, or else outside and close thereto. These vessels doubtless at one time contained food and drink for the infants' sustenance in

the nether world, and it would thus appear that some effort was made to compensate the victims for the untimely curtailment of life in this world by providing them so far as possible with the necessary means of living in the next world, though even this work of piety was probably dictated by personal considerations, for not improbably the Babylonian belief that the neglected dead wreaked their vengeance on the living prevailed also in Palestine.<sup>1</sup> Doubtless, therefore, every reasonable effort was made to appease the departed, and thus reduce the risk of any misfortune of the kind to a minimum.

The large burial-jars were all badly cracked, and all were filled with fine earth, covering the bones and the small vessels. From what indications there were it was impossible to tell whether the earth was put in at the time of burial or washed in afterwards, but the parallel afforded by Professor Petrie's discovery at Lachish, where the burial-jars were filled with fine white sand, seems to favour the former hypothesis.<sup>2</sup>

In addition to the bones found in the cistern and the jar-burials, two skeletons of children about six years of age and the skull of a man were also found within the sacred enclosure.

Unfortunately, by far the majority of the objects found in the "High Place" area belong to the houses which were subsequently erected in the sacred enclosure. The principal objects of a religious character were figurines of deities and emblems of various kinds. The most striking figure is a bronze statuette of "*Ash-toreth Karnaim*," or "*Ashtoreth of two horns*," apparently the only undoubted figure of the goddess yet discovered<sup>3</sup> (see further, p. 198).

<sup>1</sup> Cf. the present writer's *Latest Light in Bible Lands* (ed. 2), p. 226.

<sup>2</sup> Cf. Petrie, *Tell el-Hesi*, p. 32.

<sup>3</sup> Cf. Macalister, *Gezer*, ii, p. 403.



A number of Egyptian amulets were also found, but they are probably to be associated rather with the dwelling-houses than specifically with the "High Place."<sup>1</sup>

The "High Place," however, is not the only Semitic place of worship that has been discovered at Gezer. In Fig. 105 we have a plan of what appear to be the

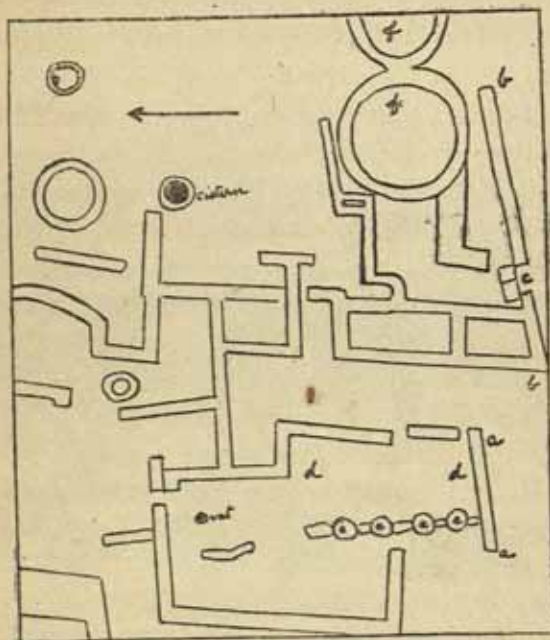


FIG. 105 (see Macalister, *Gezer*, ii, Fig. 491).

remains of a Semitic temple.<sup>2</sup> This building, which is ruined to its foundations, comprises a complex of chambers. It is bounded on the south by two walls

<sup>1</sup> The first "High Place" to be discovered was not in Palestine but in the neighbourhood of Petra in Edom (see G. L. Robinson in the *Biblical World* (Chicago), 1901, pp. 6-16; S. Ives Curtiss, *P.E.F. Q.S.*, 1900, pp. 350-5; Libbey and Hoskins, *The Jordan Valley and Petra* (1905), vol. ii, p. 71 f.; and especially G. Dalman, *Petra und seine Felsheiligtümer* (1908), p. 157 f.).

<sup>2</sup> Cf. *Gezer*, ii, p. 406 f.

(*aa*, *bb*). *aa* is composed of large and irregularly laid stones with rounded ends; in *bb* there is a doorway *c*, the threshold of which consists of two stone slabs. North of *aa* is a forecourt, more or less rectangular in shape, and the remains of a paved chamber. The chamber is separated from the forecourt by a row of four large column-bases (*eeee*), each having a diameter of about 2 feet. These bases probably supported wooden columns on which a portico was borne. Close to the



Sketch of supposed Temple at Gezer.

FIG. 106 (after Macalister, *Gezer*, ii, Fig. 492).

column-bases was found a "Horus-eye" amulet and a bronze statuette of a goddess (cf. Fig. 55 (1) and p. 199). South of the row of column-bases was found a long, narrow courtyard, in which were standing four monoliths and the stump of a fifth. The total length of this row of pillars is 44 feet 4 inches, and the largest stone measures  $7\frac{1}{2}$  feet in height by  $1\frac{1}{2}$  feet by 1 foot 5 inches.

These monoliths are "roughly squared," but their irregularity in height, the instability of their founda-



tions, and the unevenness of their tops preclude the possibility of their having been used to support a superstructure.

To the east of the "temple" was a group of circular structures, which were filled with fragments of sheep and goat bones. These showed no signs of burning or cooking, which indicates that the enclosures were not in the nature of ashpits, but rather receptacles for the bodies of sacrificial victims, like the cistern in the "High Place" described above. Three small, square column-bases were found at the eastern end of the building, their respective measurements being  $3\frac{1}{2}$  by  $1\frac{1}{2}$  feet by 1 foot 10 inches, 2 feet 2 inches by  $1\frac{1}{2}$  feet by 2 feet 2 inches, and 1 foot 1 inch by 1 foot 3 inches by 1 foot 8 inches.

Of the religious customs of the Pre-Canaanite inhabitants of Palestine we know very little, while of their beliefs we know practically nothing. Their temples or sanctuaries were caves, and here they offered sacrifices to their gods. Libations were sometimes poured into cup-shaped hollows excavated in the rock surface above the caves, from which they were conveyed by channels into the cave sanctuaries below. Meat-offerings as well as drink-offerings were made, and, as already observed, one of the animals that was used as a sacrificial victim appears to have been the pig.

In spite, however, of the abhorrence with which that animal was subsequently regarded, it was sometimes used as a sacrificial victim by the Semites (cf. *Isaiah* lxxv, 4; lxxvi, 17). This practice hardly seems reconcilable with the prevalent view that it was an unclean animal, but religious customs and beliefs, whether ancient or modern, are hardly ever consistent, whatever else they may be. Contradictory and mutually exclusive doctrines are accepted without hesitation, and when logic demands

an explanation of the inconsistency, resort is had to a supposed higher and supernatural logic of which mere mortals know nothing, and in which conflicting traditions supported by an authoritative priesthood or ministry find their adequate explanation. If the authority be challenged, the defence raised is that there has been a divine revelation in the remote past, beyond which there is of course no Court of Appeal, and which is itself beyond the realm of human intelligence or argument.

In this connection, it must however be remembered that the terms "holy" and "unclean" had no ethical or moral meaning in the mind of the Semite. Both that which was "holy" and that which was "unclean" had to be shunned: the latter because it is an abomination to the god, and therefore on that account to be eschewed, the former because it is imbued with a supernatural and contagious influence, and imparts sanctity to every one and everything with which it comes in contact. In some cases this highly inconvenient sanctity can be neutralized, but in other cases the object thus infected has to be destroyed. Accordingly, neither "holy" nor "unclean" things were free to man; in both cases man's use of objects set aside in one or other of these two ways is restricted, and any infringement of these restrictions is fraught with grave peril. Amongst the various other animal bones that have been discovered the camel bones are of particular interest, for though used by Arabs for food and sacrifice, the use of its flesh by converts to Christianity was, for some sacrosanct reason, prohibited.<sup>1</sup>

The *maṣṣēbā* or standing stone is the essential feature of the Semitic sanctuaries of later date, the significance of which has already been discussed (cf. p. 338 f.). The

<sup>1</sup> Cf. S. A. Cook, *Religion of Ancient Palestine*, p. 48.



rock surfaces with cup-marks as well as the sanctuary caves of earlier date, seem to have retained their sacrosanct character and been incorporated in or attached to the Semitic "High Place." But apart from the ancient shrines which are sacred on the ground that some divine or quasi-divine revelation had there taken place, certain trees (the terebinth and more especially the oak) acquired a religious meaning, and virtually became centres of worship. Primitive man has, indeed, universally associated religious or superstitious ideas with trees, a tendency sufficiently natural in view of their animation and life on the one hand and the beneficent purposes they serve on the other. As already remarked, the sacred tree in course of time became conventionalized, and was supplanted by an artificial pole or post (cf. above, p. 352 f.). The ordinary furniture of a Canaanite "High Place" in Old Testament times consisted of an altar near to which stood a *maṣṣēbā* and a sacred tree or *'ashērā* (cf. 1 *Kings* xiv, 23; 2 *Kings* xviii, 4). When the Israelite invaders took over the high places of the Canaanites for their own sanctuaries, they also adopted the *maṣṣēbās* and *'ashērās*, and it was only when a central sanctuary was inaugurated at Jerusalem that the high places and the *maṣṣēbās* and *'ashērās* associated therewith became illegal (cf. *Deuteronomy* xvi, 21; *Micah* v, 13, 14; *Isaiah* xvii, 8; xxvii, 9; *Jeremiah* xvii, 2; 1 *Kings* xiv, 23; 2 *Kings* xvii, 10, 16). We have Biblical evidence of the use of idols or images. Some of these were evidently life-size, as in the case of the *terāphīm* which Michal laid in the bed in place of David (cf. 1 *Samuel* xix, 13, 16), while others were small and portable (cf. *Genesis* xxxi, 19, 34, 35). The excavations have yielded nothing in any way comparable with the large *terāphīm* mentioned in 1 *Samuel* xix, but, as will have been observed, a large number of small

images, made of stone, metal, ivory, bone, or terra cotta, have been brought to light, the deity most frequently represented being Astarte.

Astarte<sup>1</sup> was a distinctively Phœnician goddess, but Phœnicia was not her original home. Her prototype was Ishtar,<sup>2</sup> who occupied a very prominent place in the Assyrian pantheon, only coming second to Ashur himself. There were three Ishtars recognized and venerated in Assyria—Ishtar of Nineveh, Ishtar of Arbela, and Ishtar of Kidmuru, but the Assyrians do not appear to have made any practical distinction between them. Ishtar was the goddess of love and war, but the bellicose Assyrians not unnaturally emphasized her warlike attributes. The Assyrians were not, however, responsible for the origin of her warlike character; “she had been regarded in this light at least as early as the time of Khammurabi, while her fighting spirit is strongly painted in the early Gilgamesh epic, but it remained for the Assyrians to develop this aspect of her character to the virtual exclusion of all other aspects. As the Assyrians extended their sway on every side, the power of Ishtar the *Bēlīt*, or ‘lady’ of battles, advanced also; she is the goddess of kings and people alike; in times of danger she vouchsafes her counsel and her timely words of encouragement to the king through the medium of dreams. She is ‘perfect in courage’ and incomparable in splendour; her appearance is like unto flames of fire, and she rains streams of fire upon the enemies of Ashur-bani-pal. Unlike other goddesses, she reigns in her own right, and not in virtue of her position as the spouse, counterpart, or reflection of any of the important gods. She is their equal in rank, power, and dignity, while her very name becomes

<sup>1</sup> See Driver in Hastings, *Dictionary of the Bible*, i, pp. 167-71.

<sup>2</sup> Cf. Jastrow, *Religion* . . . , p. 226.



almost a synonym for 'goddess,' and in later times all goddesses, whether native or foreign, came to be regarded as so many forms or manifestations of Ishtar."<sup>1</sup> She was identified with the planet Venus.<sup>2</sup>

It is impossible to say at what date her sway extended to Phœnicia. In the time of Solomon (1 *Kings* xi, 5, 33; 2 *Kings* xxiii, 13), she was the principal goddess of the Sidonians, and was worshipped by that king, while her influence was evidently considerable when the Israelites made their first appearance in Canaan, for, apparently, soon after Joshua's death the Israelites forsook Yahveh in favour of Ba'al and Astarte (cf. *Judges* ii, 13). This renowned goddess is frequently mentioned in the Phœnician inscriptions and is a common element in compound proper names.<sup>3</sup> She was identified with Aphrodite both by Greeks and Phœnicians; the Phœnician goddess being thus the link connecting the Assyrian Ishtar with the Greek Aphrodite. For both, she was essentially the goddess of fertility and generation, and the warlike characteristics with which she was accredited by the Assyrians passed out of view. With the Greek period, the sensuous aspect of her nature became indeed more and more prominent, but in the hands of those incomparable artists of antiquity she became alike the inspiration and the subject of some of the finest concrete expressions of feminine grace and beauty in the world.

Abundant evidence of the popularity of the cult of Astarte in Palestine during the Canaanite and Israelite periods is afforded by the Astarte plaques already described, as well as by the numerous references to

<sup>1</sup> Cf. the present writer's *Mesopotamian Archaeology*, pp. 393, 394.

<sup>2</sup> Cf. Schrader, *Die Keilinschriften und das Alte Test.* (ed. 2), on *Judges* ii, 13; Sayce, *Hibbert Lectures*, pp. 253 ff.

<sup>3</sup> Cf. G. A. Cooke, *North-Semitic Inscriptions*, pp. 27 ff., 37 ff., etc.

the goddess in the Old Testament and the Phœnician inscriptions.

The other Canaanite deity, or rather deities, to whom reference is most frequently made in the pages of the Old Testament is Ba'al. It was originally thought that Ba'al was to be identified with the sun-god; this theory depended on the fallacious assumption that the worship of the heavenly bodies is the origin of religion. But such is not the case. The term "Ba'al" simply means "lord," and though it is admitted that Bel (the Babylonian form of Ba'al) became a proper name in later times, and was identified with the planet Jupiter, though never with Shamash, the sun-god, there was originally no supreme deity to whom that name was specifically and exclusively applied. When the Israelites entered Canaan the worship of *Ba'alim* was everywhere prevalent. These *Ba'alim* were simply local Ba'als, who each inhabited his own place, and to each of whom the fertility and natural advantages of the particular spot were attributed. But animal fruitfulness came to be regarded as dependent on the beneficent offices of the local Ba'als, and their worship thus became readily associated with the most repulsive forms of immorality. Hence it was that the cult of the local Ba'al was so severely condemned by the Israelite prophets. During the early period of Israel's occupation of Canaan, the worship of the local *Ba'alim* was probably followed side by side with that of Yahveh, the god of their nomadic fathers, but when they came into full possession of the land, Yahveh Himself became the Ba'al, lord, or owner of the land, as well as of the people whom He had established there. That this term was applied to Yahveh is shown by the Biblical proper names Ishba'al, Meribba'al,<sup>1</sup> and Bealiah, which means "Yahveh is Ba'al."

<sup>1</sup> These two names were subsequently changed to "Ishbosheth" and



But in later times, when the term became specifically associated with heathen worship as opposed to Yahveh worship, and when the principle of henotheism gained official recognition, the application of the term to Yahveh was prohibited, and accordingly Hosea (ii, 16) writes: "And it shall be at that day, saith the Lord, that thou shalt call me Ishi (i.e. my husband), and shalt call me no more *Ba'ali* (i.e. my Ba'al, or 'lord')." The Ba'al introduced by Ahab was the Tyrian Melkart; the cult of this god was stamped out by Jehu, and had of course nothing to do with the anti-Ba'al campaign of the succeeding century.<sup>1</sup>

In addition to the numerous plaques and figurines of Astarte which have been unearthed in Palestine, small images of other gods have come to light. The gods represented, however, are mostly Egyptian, Bes or Ptah being perhaps the most frequently encountered. Many of the little male and female figures discovered, of which the divine character is no longer apparent, may in reality be idols, and similarly some of the small models of animals may be fetishes or symbols, but nothing definite can be said in regard to these. There is the same uncertainty about the numerous small phalli that have been found, and to infer the existence of a phallic cult in Palestine on this evidence alone would be most hazardous.

Many of these small figures and objects were very possibly talismans, amulets, or charms, and are to be

"Mephibosheth" respectively; the substitution of *bosheth* ("shame") for *ba'al* was of course due to the specifically heathen associations which had become attached to that name.

<sup>1</sup> Cf. W. R. Smith, *Religion of the Semites* (ed. 2), pp. 93-113; Baethgen, *Beiträge zur Semit. Relig.-gesch.*; Oort, *The Worship of Baalim in Israel*; E. Meyer, art. "Baal" in Roscher, *Lexikon der Griech. und Röm. Myth.*, 2867 f.; Driver, *Samuel*, pp. 186, 195 f., 279; G. B. Gray, *Hebrew Proper Names*, p. 141 f.

classed with the large number of undoubted amulets which have been unearthed. Sometimes the figurines, models, and pottery deposited in tombs have been purposely broken. Whether the idea underlying this practice is that the objects must be "killed" in order that their souls or doubles may accompany the soul or double of the departed, or whether they were broken in order that their sacrosanct character should not be violated by being subsequently used for secular purposes, we cannot say.

Of the numerous representations of animals that have been recovered, none is more interesting than the bronze cobra shown in Fig. 55 (7) (cf. p. 201). Serpents have always been associated with spirits, both maleficent and beneficent, and there can be little doubt that this bronze model of a serpent, discovered within the precincts of the "High Place" at Gezer, is an additional piece of evidence of the practice of ophiolatry in Palestine to that afforded by the pages of the Old Testament. It will in particular be recalled that the brazen serpent which Moses set up for curative purposes became an object of veneration and worship, and the destruction of this serpent was one of the reforms which Hezekiah carried out (cf. 2 *Kings* xviii, 4).

Sacrifice has at all times been one of the principal features of religious practice. That generalization happily does not always apply to the practice of human sacrifice. In Canaan this custom appears to have been very prevalent. Among the Hebrews, the first-born of men and the firstlings of animals were sacrificed to Yahveh; but Yahveh did not require the offering of human blood, and redemption took the place of actual sacrifice. This *principle* was, however, recognized from the earliest times, as Abraham's *literal* acceptance of the Divine command to offer up his son Isaac proves; but the actual sacrifice



was not exacted, and the patriarch thus learnt the truth to which Micah gave utterance so many centuries after: "Shall I give my first-born for my transgression, the fruit of my body for the sin of my soul?" The surrounding nations had not, however, attained to the same degree of spirituality. Accordingly, we read that Mesha, the King of Moab, when hard pressed by the Israelites, "took his eldest son . . . and offered him for a burnt-offering upon the wall," with the result that "there was great indignation against Israel: and they departed from him, and returned to their own land."

Incidentally, this passage also shows that the Israelites at this date clearly believed in the existence of other gods than Yahveh, and also in their power. Some centuries earlier Jephthah vowed to offer "whosoever" (*Judges* xi, 31, R.V. m.) met him from the house, and actually did offer his only child in sacrifice to Yahveh.

But there is abundant archæological evidence of the prevalence of this custom in Palestine. Thus at Gezer<sup>1</sup> a whole cemetery of jar-burials containing the remains of infants was revealed; the burials in question were found in the stratum underneath the "High Place" of Gezer, and there can be little doubt that they are the remains of human sacrifices. Moreover, none of these infants was over a week old, and therefore they are clear examples of first-born sacrifices. Smaller vessels containing food and drink were buried with the victims, as in the case of ordinary burials.

But apart from the well-attested practice of offering the first-born in sacrifice, human sacrifices were, as we have seen, offered at times of special stress and emergency. They were also frequently offered when a building was about to be erected, the victim being buried in the foundations or structure of the building.

<sup>1</sup> Cf. Macalister, *Gezer*, ii, pp. 405-6.

The Biblical evidence in regard to this practice is very slender, there being, in fact, only one passage in which reference appears to be made thereto.

In *Joshua* vi, 26 a curse is pronounced upon the man who should attempt to rebuild Jericho—"he shall lay the foundation thereof in his first-born, and in his youngest son shall he set up the gates of it." But as the late Professor Driver<sup>1</sup> remarks: "The curse implies

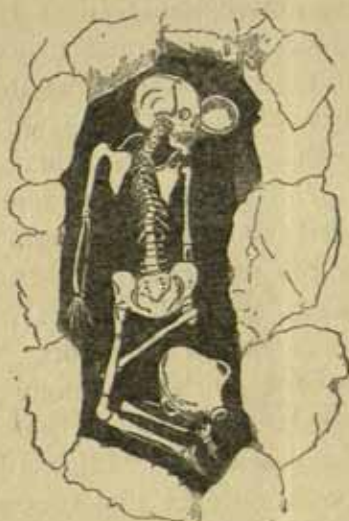


FIG. 107 (see Macalister, *Gezer*, ii, Fig. 508).

not an ordinary practice, but that something unusual and unexpected would happen to Hiel." The common supposition that Hiel lost his sons through some accident befalling them while the work of rebuilding was in progress is more probably correct.

In Palestine to-day an animal sacrifice is offered when any important building is about to be erected. Thus, in 1898, a foundation or inauguration sacrifice of a sheep

<sup>1</sup> Cf. *Schweich Lectures*, 1909, p. 71.



was offered at the building of a jetty for the landing of the German Emperor at Haifa.<sup>1</sup>

The excavations have afforded numerous examples of human foundation sacrifices. The victim was usually a child, and possibly therefore a first-born, but such was not always the case. At Gezer,<sup>2</sup> for example, the skeleton of a woman of advanced age was found deposited in the corner of a building (cf. Fig. 107). The body is lying on its back, the legs being slightly contracted. Near the head was a small bowl, and another

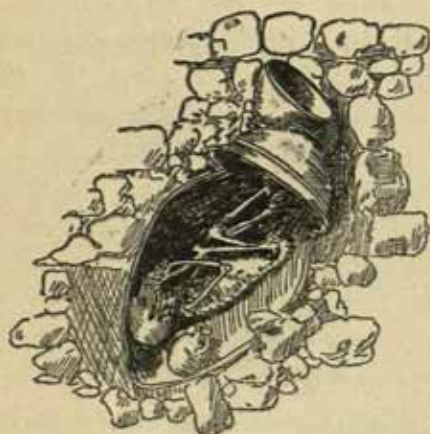


FIG. 108 (see Steuernagel and Schumacher, *Tell el-Mutesellim*, p. 25, Fig. 23).

vessel lay near the legs. In the case of another adult foundation sacrifice discovered at Gezer,<sup>3</sup> the victim was a man: the body is extended, and from the position of the arms he appears to have been bound. It was buried under the floor of a room.<sup>4</sup> The child foundation sacrifices were usually placed in jars. In the example shown in Fig. 108 the funerary urn is covered with a bowl. This, together with other jar-burials, was found

<sup>1</sup> Cf. S. A. Cook, *Religion of Ancient Palestine*, p. 39.

<sup>2</sup> Cf. Macalister, *Gezer*, ii, p. 427.

<sup>3</sup> Cf. *ib.* ii, p. 427.

<sup>4</sup> For other examples see Macalister *ad loc.*

at the foot of a wall at Megiddo, and some 55 feet below the surface. They were apparently not built actually into the structure or foundation of the wall, but lay right close up to the wall, and are therefore probably examples of foundation sacrifices. The knees are contracted—a position in this case obviously necessitated by the narrow limits of the primitive sarcophagus—the hands and arms are near the face, and the feet are in the opening of the urn. As usual, one or two vessels for food and drink had been placed with the corpse in the jar.<sup>1</sup>

Another example, also from Megiddo,<sup>2</sup> is shown in



FIG. 109 (see Steuernagel and Schumacher, *Tell el-Mutesellim*, p. 45, Fig. 41).

Fig. 109. This jar-burial was deposited between the first and second layers of stones in the foundation of the wall of the northern castle, and was enclosed on all sides by wall-work. The jar is about 3 feet long and 1 foot 4 inches wide, and the opening, which has a diameter of 8 inches, was covered with a small slab of stone. In the neck of the jar were three small food-vessels.

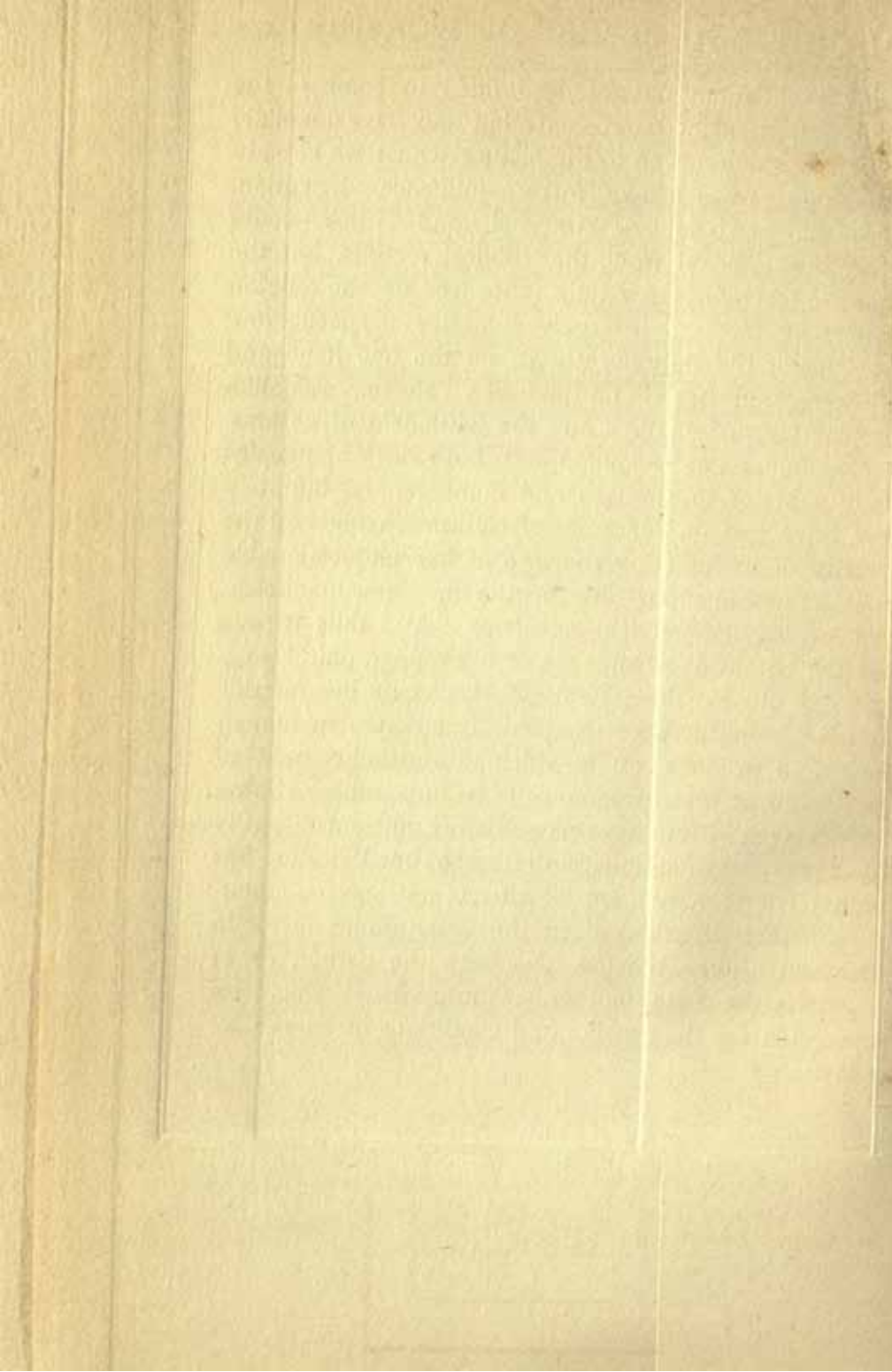
On the whole, archæology throws little new light on the religious practices and customs which obtained in Palestine during the Pre-Christian Semitic Periods.

<sup>1</sup> Cf. Steuernagel and Schumacher, *Tell el-Mutesellim*, p. 25, Fig. 23, and p. 28 f.

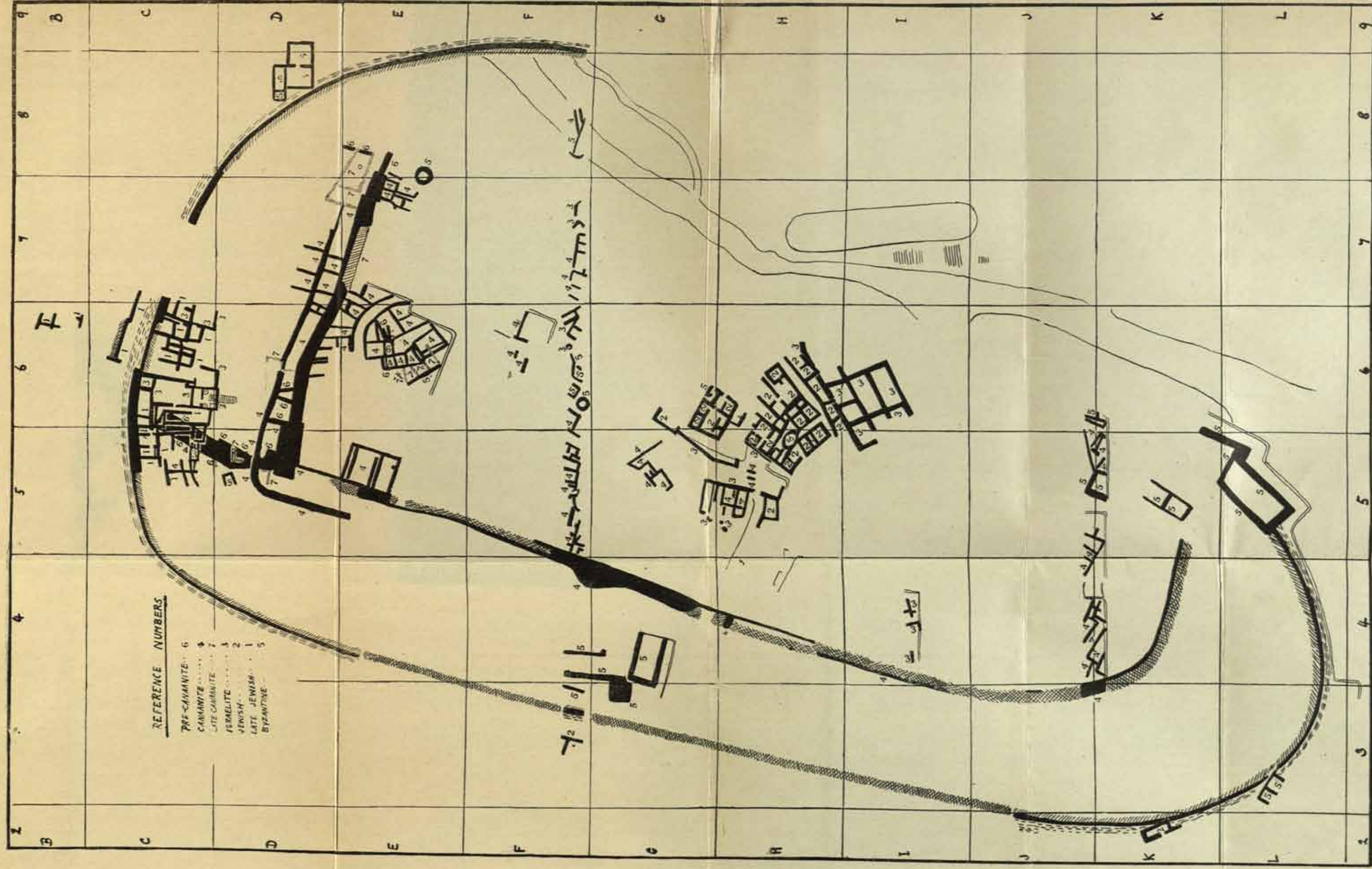
<sup>2</sup> *Ib.* pp. 44, 45, Fig. 41.



The excavations have indeed filled in some of the details and intensified the colours, but they have not made any material alteration to the picture which we already had. The prevalence of foreign influence—Egyptian, Mycenæan, Babylonian, Assyrian, and Greek—could be readily inferred from the Biblical records, but the precise effect of these exotic influences on the religion of the country is still largely a matter of speculation. Lying as it did between Egypt on the one hand and Babylonia and Assyria on the other, Palestine was alike the plaything of empires and the battlefield of nations. A petty buffer-state, hemmed in on both sides by peoples vastly superior in strength and numbers, and infinitely more advanced on the scale of civilization, she had the capacity of assimilating the arts of her unquestionable superiors and incorporating them in the outer manifestations of her independent existence. And thus it was that the patent disadvantages of her topographical position, and the equally patent drawbacks of her inferior material strength, were destined, as so often in human history, to produce results which the orthodox political seer would at once pronounce to be impossible. Babylonia, Assyria, Crete have passed away, ancient Egypt is but the subject of antiquarian research, but Palestine has given birth to a religion which has not only on countless different occasions been the determining factor in European history, but has also been the parent, or at all events the foster-mother, of those virtues which are responsible for the ameliorated conditions of human life to-day.







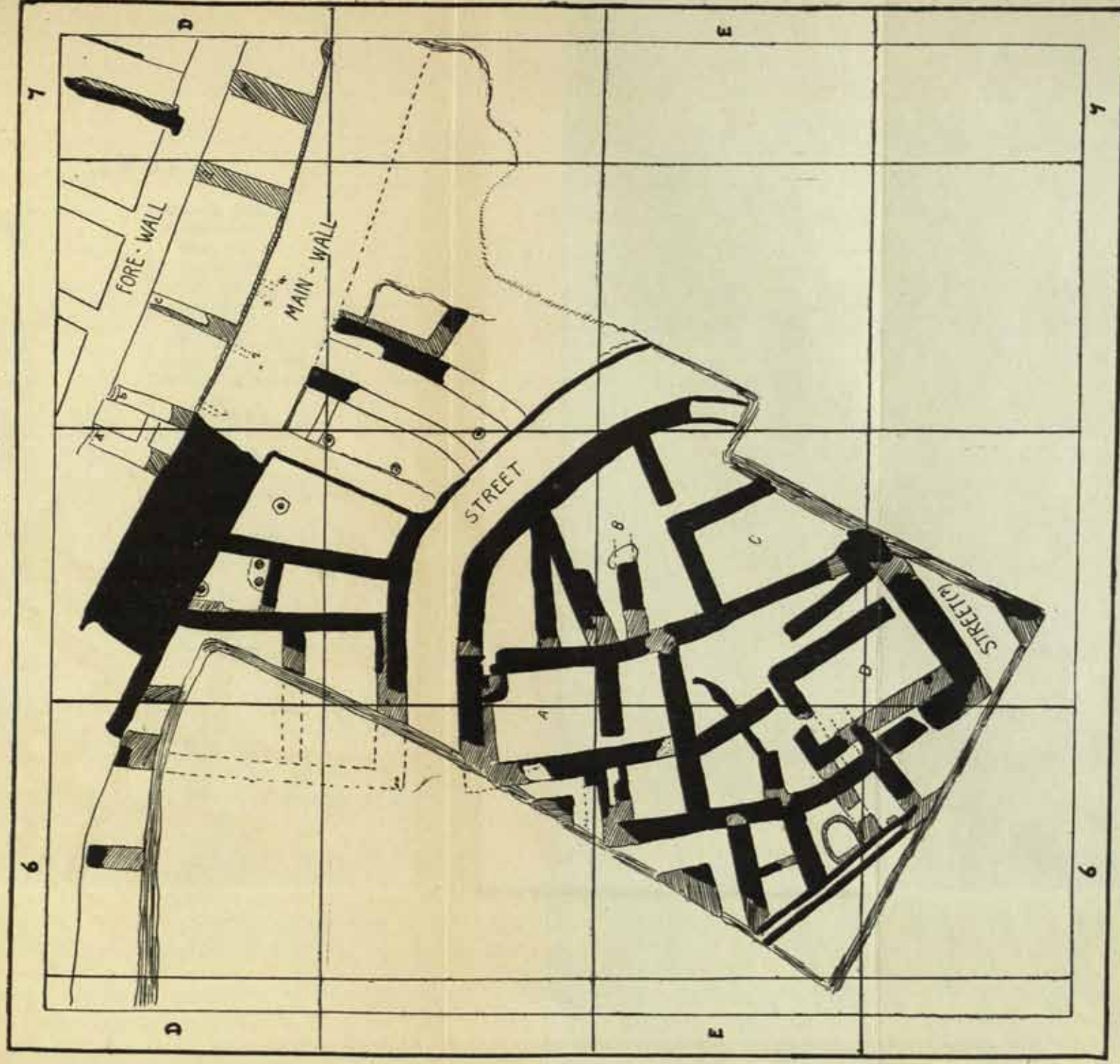






JERICHO.—PLAN II.

(After Sellin-Watzinger, *Jericho*, Tafel II.)







# INDEX

- Absalom, 21  
 Adad-nirari I, 184  
 Adze—  
   copper, 179  
   horn, 38, 149  
 Ægean influence, 22, 23  
 Agate, 158, 174, 307, etc.  
   beads, 33, 40, 170  
 Ahab, 298, 367  
   palace of, 121, 122  
 Ahi-yami, 301  
 'Ain el-Guderat, fortress of, 113 f.  
 'Ain Shems, see *Bethshemesh*  
 Alabaster, 158, 160, 161, 162, 170, etc.  
   vase of Osorkon II, 298  
   vessels, 38  
 Altars, 19, 123, 175 f., 291, 331, 351  
 Aman-hashir, 301  
 Amathus, 284  
 Āmenhetep III, 71  
 Āmenhetep IV, 194  
 Amethyst, 174  
   beads, 170  
   scarabs, 40  
 Ammān, dolmens in, 18  
 Amphoræ, 126, 128, 132  
 Amulets, 195, 305, 359, 367 f., etc.  
   bone, 152 f., 171  
   ivory, 156, 171  
   stone, 171, 172  
 Anathoth, 331  
 Animals, bronze figures of, 201  
 Anti, 102  
 Aphrodite, 365  
 'Arā el-Māḡ, cave at, 53  
 Aramaic inscriptions, 20  
   writing, 297  
 Arches, 138 f.  
   earliest example of, 138  
 Arcosolia, 324  
 Armlets, gold, 33  
 Arrow-heads—  
   bone, 152  
   bronze, 181  
   flint, 144, 149, 181  
   iron, 204 f.  
 'Ashērās, 351  
 Ashloreh Karnaïm, 198, 358  
 Ashur, the god, 364  
 Asia Minor, importations from, 285,  
   etc.  
 "Astaroid vases," 280  
 Astarte—  
   cult of, 364 f.  
   figures of, 198, 273 f.  
 Atargatis, bronze image of, 200  
 Awls—  
   bone-handled, 151  
   bronze, 188, 209  
   copper, 179  
   flint, 145, 149  
 Axes—  
   bronze, 184  
   copper, 179  
 Ba'al, Ba'alim, 366 f.  
 Babylonia, burial customs in,  
   306  
 Bacchides, 74  
 Baethgen, 367  
 Ballista, use of a, 168  
 Basalt, 157, 160, 165, 168, 172, 342,  
   etc.  
   beads, 170  
   scarabs, 40  
 Beads, 158, 170 f., 306, etc.  
   agate, 33, 40  
   bone, 153  
   carnelian, 33, 40, 310  
   crystal, 40

- Beads (*continued*)—  
 glass, 172, 271  
 gold, 33, 212  
 ivory, 156  
 jade, 170  
 jasper, 33, 40  
 paste, 33  
 porcelain, 170  
 shell, 307  
 stone, 39, 170-1  
 Beitin, 331  
 Bel, the god, 366  
 Belck, W., 203  
 Bells, bronze, 175, 202  
 Bes—  
 bronze figures of, 198  
 the god, 367  
 Bêt Jibrin, 30  
 Bethshemesh—  
 city-wall of, 82 f.  
 objects from, *passim*  
 Birds, terra-cotta figures of, 288  
 Bismâya, 141  
 Blanckenhorn, M., 7  
 Bliss, Dr. F. J., 8, 27, 117, 158, 161,  
 162, 168, etc.  
 Boat, terra-cotta model of, 291  
 Bone, 40, 149 f.  
 amulets, 152 f.  
 arrow-heads, 152  
 awl-handle, 151  
 beads, 153  
 buttons, 152  
 combs, 152  
 figures, 153  
 handles, 144, 145  
 implements, 149 f.  
 needles, 39, 151  
 pins, 151, 154  
 scaraboids, 152  
 scarabs, 152, 174  
 stoppers, 153  
 styli, 151  
 Boomerang, ivory, 157  
 Bowls—  
 bronze, 189  
 silver, 214  
 terra-cotta, see Chapter VI,  
*passim*  
 Bracelets—  
 bronze, 192  
 iron, 210  
 silver, 212  
 Bracket, bronze, 203  
 Bronze, 179 f.  
 awls, 209  
 buckles, 195  
 figures, 196 f.  
 gilt, 38  
 pins, 33  
 pots, 38  
 punch, 39  
 spear-heads, 39  
 Brushes, paint-, 162  
 Buckle, lead, 211  
 Buckles—  
 bronze, 195  
 iron, 210  
 Budge, Dr. E. A. Wallis, 56  
 Buffalo, 47, 49  
 Bull, terra-cotta figures of, 285  
 Burial-customs—  
 early Semitic, 305 f.  
 Hellenistic period, 324 f.  
 Israelite, 318 f.  
 Pre-Semitic, 303 f.  
 Third Semitic Period, 316 f.  
 Buttons—  
 bone, 152  
 stone, 172  
 terra-cotta, 291  
 "Calendar Tablet," 177 f.  
 Camels, 335, 362  
 bronze figures of, 195, 201  
 Canaanite towns, 65 f.  
 Carnelian, 158, 307, etc.  
 beads, 33, 40, 170, 171, 310  
 scarabs, 40  
 Castagnettes (?), bronze, 202  
 Caves, Troglodyte, 25, 27 f., *et*  
*passim*  
 Cellars, see *Store-chambers*  
 Cement, 34, 61  
 Chain-mail, iron, 211  
 Chains, bronze, 192, 203  
 Chalcedony, 158  
 Chellean axes, 142



- Child-burials, 128  
   -sacrifices, 306, 369 f.  
 Chisels—  
   bronze, 186  
   copper, 179  
   flint, 145  
   iron, 209  
 Choppers, iron, 208  
 Cisterns, 27 f., 43, 56 f.  
 Clay as a writing material, 300  
 Clermont-Ganneau, M., 296  
 Clunch, 170, 172  
 Cobra, bronze model of, 201  
 Columns, 140, etc.  
 Combs, bone, 152  
   ebony, 156  
   ivory, 156  
 Contracted burials, 306, 310, etc.  
 Cook, S. A., 362, 365, 371  
 Cooke, Dr. G. A., 20, 178, 365  
 Cooking-pots, bronze, 189  
 Copper objects, 179 f.  
 Corn-rubber, stone, 39  
 Cow, terra-cotta figures of, 285  
 Cows, 18, 46, 335, 356  
 Cranes, 39, 151  
 Cremation, practice of, 22, 303 f.  
 Crescents—  
   bronze, 195  
   silver, 39, 212  
 Crete, influence of, 22, etc.  
 Crosses—  
   bronze, 195  
   iron, 210  
 Crucibles—  
   porcelain, 211  
   stone, 175, 211  
 Crystal—  
   beads, 40, 170  
   scarabs, 40  
 Cuneiform tablets, 109, 300, 301, 332  
 Cup-marks, 32 f., 42 f., 63 f., 308, 327 f.  
 Cups, see Chapter VI, *passim*  
 Curtiss, S. I., 359  
 Cyanus beads, 170  
*Cyclopean* technique, 94, 118  
 Cylinders—  
   paste, 40  
   stone, 40  
 Cyprus, 22, 278, 284, 285, etc.  
 Dagger pommels, 175  
 Daiches, Dr. S., 178  
 Dalman, Professor G., 178, 359  
 De Morgan, M., 322  
 Deer, 356  
 Diorite, 157, 160, 170, 172, 174  
 Dolmens, 18 f  
 Doors, 138  
 Door-sockets, 137  
 Doorways, 137  
 Drains, 140, 141  
 Draught-boards (?), 178  
 Draughtsmen, 172  
 Driver, Professor S. R., 178, 297, 364, 367, 370  
 D'Ustinow, Baron, 281  
 Ear-rings, 39, etc.  
   bronze, 192  
   gold, 212  
   silver, 33, 212  
 Ebony combs, 156  
 Egypt, 22, 23, 271, etc.  
   burial customs in, 306  
 "El," mentioned in inscriptions, 300  
 Elephantine, papyri from, 298  
 Enamel, 307  
 Fibulæ, bronze, 191  
 Fireplaces, 128, 134  
 First-born sacrifices, 368 f.  
 Flint—  
   arrows, 144, 149  
   awls, 145, 149  
   chisels, 145  
   hammers, 145  
   implements, 28, 30, 35, 39, 49, 54, 142 f., 204, 309, 329  
   javelins, 144  
   knives, 146 f.  
   razors, 145  
   saws, 144, 145, 148  
   scrapers, 144, 148-9  
   scythes, 145

- Flint (*continued*)—  
 sickles, 148, 149  
 spear-heads, 149  
 Flints—  
 modern, 145, 146  
 Palæolithic, 17  
 Floors, 137  
 Flour, 132  
 Flower, gold, 212  
 Fortresses, 67 f.  
 Foundation-sacrifices, 321, 369 f.  
 Fruit-presses, 56 f.
- Games, 280  
 Germer-Durand, P., 282  
 Gezer, 17, 65, 94, *et passim*  
 cuneiform tablets from, 301  
 dates of inner and outer city-walls, 71  
 "First Semitic" building at, 114, 115  
 "High Place" at, 345 f.  
 inner city-wall, 69  
 Maccabæan castle at, 135  
 outer city-wall, 71 f.  
 "Second Semitic" building at, 115  
 Semitic temple at, 359 f.  
 the three city-walls of, 67 f.  
 "Third Semitic" building at, 116, 117  
 water-passage at, 53 f.
- Gideon, 331  
 Gilgal, 337  
 Gilt, 196  
 bronze, 189, 194  
 Glacis, 68  
 Glass, 172, 271, 272  
 scarabs, 174  
 Goats, 18, 152, 356, 361  
 Gods, images of, 273 f.  
 Gold, 211 f.  
 armlets, 33  
 beads, 33  
 leaf, 211, 212  
 -plate, 201  
 rings, 33  
 rosettes, 33  
 wire, 212
- Graffiti, 46 f.  
 Granaries, 134 f.  
 Granite, 165, 168  
 Graves, *see Tombs, Burial Customs*  
 Gray, Professor G. Buchanan, 178, 367  
 Greek—  
 influence, 22 *et passim*  
 inscriptions, 176 f.  
 Gressmann, H., 20, 284  
 Grindstones, 18, 167
- Hæmatite, 158, 168, 171  
 Hairpins, 40, etc.  
 silver, 212  
 Hammers—  
 bronze, 186  
 flint, 145  
 Hatchets—  
 copper, 179  
 iron, 209  
 Hathor, the goddess, 276  
 Hauran, dolmens in the, 18  
 Hawk's head, gold, 212  
 Hearths, 140, and *see Fireplaces*  
 Hebrew writing, 148, 173, 176 f., 261, 269, 293 f.  
 Hebron, mentioned on jar-handles, 294  
 Heuzey, M. Léon, 276, 278, etc.  
 "High Places," 334 f.  
*Hillani*, 120, 121  
 Hilprecht, Professor H. V., 322  
 Hippopotamus, 153  
 Hizmeh, 331  
 megalithic remains at, 19  
 Hooks, iron, 211  
 Horn adze, 38, 149  
 Horse, terra-cotta figures of, 285, 287 f.  
 Horse's bit, iron, 211  
 "Horus-eye" amulets, 360  
 Houses—  
 Canaanite, 125 f.  
 Hellenistic, 132 f.  
 Israelite, 128 f.  
 late Fourth Semitic, 131 f.  
 normal type of, 124 f.  
 of modern *jellahin*, 125



- Human sacrifices, 321, 348, 357,  
368 f., and see *Foundation-  
sacrifices*
- Idols, see *Images, Terāphim*
- Images, 198, 363  
terra-cotta, 273 f.
- 'Imran, 20
- Incense-altar at Megiddo, 123, 291
- Inscriptions, 176 f., see *Cuneiform  
Tablets, Hebrew Writing,  
Ostraka, Clay*
- Iron, 191, 203 f., etc.  
arrow-heads, 204 f.  
bracelets, 210  
buckles, 210  
chisels, 209  
choppers, 208  
cross, 210  
earliest use of, 54, 204  
hatchets, 209  
keys, 138, 210  
knives, 206  
nails, 209  
ornaments, 210  
pins, 210  
plates of, 79  
rings, 210  
sickles, 208  
spear-heads, 204 f.
- Ishtar, the goddess, 200, 364
- Ishtar-washur, 301  
building of, 59, 109  
underground caverns beneath  
fortress of, 332 f.
- Isis, the goddess, 200
- Ivory, 153 f.  
amulets, 156  
beads, 156  
boomerang, 157  
combs, 156  
figures, 155, 156, 157  
inlays of, 38, 40  
perfume-boxes, 154  
scaraboids, 154  
scarabs, 154, 174  
styli, 151
- Jacob, 21
- Jade, 174  
beads, 170
- Jar-burials, 308, 321, 357, 369  
-drains, 141  
-handles, Rhodian, 298  
-handles, stamped, 293
- Jars, see Chapter VI, *passim*
- Jasper, 158, 168  
beads, 33, 40, 170
- Jastrow, Professor Morris, 364
- Jaulan, dolmens in the, 18
- Javelins—  
bronze, 186  
flint, 144
- Jehu, 367
- Jephthah, 369
- Jerablus, 354
- Jericho, 149, *et passim*  
Canaanite houses at, 125 f.  
inner fortification-walls of, 84 f.  
Israelite houses at, 128 f.  
large Israelite building at, 118 f.  
late Fourth Semitic houses at,  
131 f.  
Pre-Canaanite fortification-wall,  
83-4  
the large outer-wall, 92 f.; date  
and origin of, 96 f.
- Jeroboam, 174
- Jerusalem, 142, 177, etc.
- Jugs, see Chapter VI, *passim*
- Jupiter, the planet, 366
- Ḳabur Beni Isra'în, 19, 331
- Keys, 138, 210
- Khurbet el-'Ain, rock-cutting at, 51
- Kittel, R., 301, 351
- Knives—  
bronze, 184 f.  
flint, 146  
iron, 206
- Kôkîm, 324 f.
- Koldewey, Dr. Robert, 120
- Lachish, 65, 181, *et passim*; see  
also *Tell el-Hesi*
- Ladles, 309  
silver, 214
- Lagrange, Père, 160, 351

- Lamps, 37, 41, 259 f., 269 f., 325  
     bronze, 203  
 Langenegger, Dr., 96, 132  
 Lavers, 354  
 Lawrence, T. E., 19, 113, 114, 145  
 Lead, 81, 211  
     earliest use of, 211  
 Libation-offerings, 361  
 Libbey and Hoskins, 359  
 Lichtenberg, R. von, 23  
 Lidzbarski, Professor, 178  
 Lime, 308  
 Lime-mortar, 111  
 Limestone, 27, 28, 145, 158, 160,  
     162, 168, etc.  
     beads, 170  
     figure, 307  
     scarabs, 40  
     slabs, inscribed, 176 f.  
     tablets, 158  
     used for building purposes, 105,  
     etc.  
 Lyon, Dr. D. G., 298, 299  
  
 Macalister, Professor R. A. S., 8,  
     27, 54, 94, 124, 132, 145,  
     158, etc.  
 Maccabæan castle, 135  
 Mace-heads, 168, 311  
 Mackenzie, Dr. Duncan, 82, 83,  
     287, 311, 317, 320  
 Mader, P. D., 21  
 Magdalenian period, 144  
 Mamshith, mentioned on jar-  
     handles, 294  
 Ma'nan, 20  
 Manoah, 331  
 Marble, 157, etc.  
     beads, 170  
 Marti, Professor K., 178  
 Maššēbās, 21 f., 320, 334 f., 338 f.,  
     362 f.  
     room with *maššēbās* at Megiddo,  
     123  
 Medeba, 20  
 Megalithic remains, 18 f.  
 Megiddo, 65, 74, 94, 102, 158, etc.;  
     see also *Tell el-Mutesellim*  
     vaulted chamber at, 139  
  
 Melkart, 367  
 Menephthah, 156  
 Menhirs, see *Maššēbās*  
 Mesha, 369  
 Meyer, Professor E., 367  
 Millstones, 132  
 Mirrors, bronze, 191  
 Moab, 20  
 Moabite—  
     dolmens, 19  
     stone, 173, 177, 299  
 Moore, Professor G. F., 352  
 Mortars, 128, 165  
 Mosaic floors, 60, 137  
 Moulds—  
     stone, 175, 179, 211  
     terra-cotta, 273  
 Mousterian Period, 144  
 Mouth-plates, 192, 318  
 Mud-mortar, 69, 72, 85, 105, 106,  
     137  
 Mukeyyer, 141  
 Murray, 284  
 Mutton, 316  
 Myres, J. L., 192, 317  
  
 Nabataean inscriptions, 20  
 Nails—  
     bronze, 188  
     iron, 209  
 Necklaces, 174, 307  
 Needles, bone, 18, 39  
 Neolithic—  
     Age, 18 f., 145 f.  
     flints, 145 f.  
 Nineveh, 284  
 Nippur, 141  
  
 Ohnefalsch-Richter, 278  
 Olive-presses, 56 f., 310  
 Omri, palace of, 121, 122  
 Oort, 367  
 Ornaments, iron, 210  
 Osorkon II, King of Egypt, 122  
     alabaster vase of, 298  
 Ossuaries, 325, 326  
 Ostraka, 298 f.  
 Ovens, 127



- Ownership marks, on flints, 148  
Ox-goads, bronze, 188
- Paint, 134, 137, 139, 161, etc.  
-brushes, 162  
-grinders, 165  
red ochre, 132
- Palæolithic Age, 17  
flints, 142 f.
- Palettes, stone, 161, 219
- Palmyrene inscriptions, 20
- Paste—  
beads, 33  
cylinders, 40  
scarabs, 40
- Pearls, 196
- Pendants—  
bronze, 192  
gold, 212  
iron, 210
- Perfume-boxes, ivory, 154
- Perrot and Chipiez, 278, 315
- Petra, "High Place" at, 359
- Petrie, Professor Flinders, 8, 280, 358, etc.
- Phallic worship, 21, 367
- "Philistine" deposits, 151, 214  
graves, 317
- Philistines, introduction of iron by, 203
- Phœnician inscriptions, 177, 299
- Pig—  
ivory figure of, 157  
sacrificial use of, 361, 362
- Pigs, 18, 330, etc.
- Pilcher, Dr. E. J., 178
- Pillars, rock-cut, 140
- Pins—  
bone, 18, 154  
bronze, 33, 189  
bronze gilt, 38  
iron, 210  
silver, 33  
wooden, 154
- Plates, 132; and see Chapter VI, *passim*
- Porcelain scarabs, 174
- Potter's wheel, introduction of, 220
- Potters' marks, 231, 241, 254, 261, 269
- Pottery—  
First Semitic, 220 f.  
Fourth Semitic, 254 f.  
Hellenistic, 263 f.  
Pre-Semitic, 215 f.  
Second Semitic, 231 f.  
Third Semitic, 242 f.
- Ptah—  
bronze image of, 200  
the god, 367
- Puchstein, 120
- Pulley, bronze, 203
- Quartzite, 161, 168, 172  
beads, 170
- Rachel, 21
- Ramparts, 67 f.
- Ramses II, 283
- Razors, flint, 145
- Rehoboam, 76
- Reisner, Professor G. A., 298
- Reservoirs, 133 f.
- Ridgeway, 162
- Rings—  
bronze, 192  
gold, 33, 212, 318  
iron, 210  
stone, 39
- Robinson, G. L., 359
- Rock-cuttings, various, 56 f.
- Ronzevalle, Professor S., 21, 178
- Roofs, 138, etc.
- Rosettes, gold, 33
- "Royal stamps," 294
- Rujm-el-Melfuf, dolmen at, 19
- Sacred trees, 363
- Sacrifices, 356 f., 368 f., etc.
- Şalm, the god, 20
- Samaria, 66, etc.  
Israelite buildings at, 121 f.  
ostraka from, 298 f.  
stairway at, 140  
vaulted chamber at, 139
- Sandstone, 145, 157  
millstones made of, 132

- Sati, town of the, 104  
 Saucers, see Chapter VI, *passim*  
 Saws, flint, 144, 145, 148  
 Sayce, Professor A. H., 294, 295, 365  
 Scarabs, 22, 33, 38, 40, 43, 172, 174, etc.  
     bone, 152  
     ivory, 154  
 Scaraboids—  
     bone, 152  
     ivory, 154  
 Schrader, Eberhard, 365  
 Schumacher, Dr. G., 18, 74, 136, 139, 158, 164, 165, 175, 314, etc.  
 Scimitar, bronze, 184  
 Scrapers, flint, 144, 145, 148-9  
 Seal-impressions, 242, 261  
 Seals, 40, 158, 172 f.  
 Sellin, Professor Ernst, 8, 21, 84, 85, 86, 94, 96, 107, 109, 158, 161, 321, etc.  
 Semites, first appearance of, 22  
 Serpent-worship, 368  
 Serpentine, 157  
     scarabs, 40  
 Sewing, 212  
 Sha'b Ya'kûb, 62  
 Shaft-tombs, 313  
 Shalmaneser II, 122, 298  
 Shama, 174  
 Shamash, the god, 366  
 Sheep, 18, 151, 335, 356, 361  
 Shell beads, 175, 307  
 Shells, 39  
*She'ol*, 43  
 Sickles—  
     bronze, 188  
     flint, 148, 149  
     iron, 208  
 Signet-rings, 194  
     iron, 210  
 Siloam inscription, 177  
 Silver, 211 f.  
     ear-rings, 33  
     pendants, 39  
     pins, 33  
     rings, 307  
 Slate, 171, 172  
 Sling-bullets, leaden, 211  
 Smith, W. R., 367  
 Socoh, mentioned on jar-handles, 294  
 Solomon, 74  
 Solutrean Period, 144  
 Spatulæ—  
     bronze, 188, 189  
     iron, 211  
 Spear-heads—  
     bronze, 39, 181  
     flint, 149  
     iron, 204 f.  
 Spindle-whorls—  
     bone, 170  
     clay, 35, 170, 291  
     stone, 170  
 Spoons—  
     bronze, 188  
     shell, 188  
 Stables, 27  
 Stag, 47, etc.  
     bronze figure of, 201  
     handle made from horn of, 132  
 Stairways, 140  
     rock-cut, 29 f.  
 Steatite, 174, etc.  
     scarabs, 40  
 Steel, 203  
 Steuernagel, Professor C., 8, 102, 104, 122, 123, 136, 139, 158, 164, 165, etc.  
 Stone, 157 f., etc.  
     Age, 142 f.  
     beads, 39  
     circles, 19, 337  
     corn-rubber, 39  
     cylinders, 40  
     figures, 158 f.  
     rings, 39  
     vessels, 160 f.  
 Stone-dressing, 137  
 Stoppers, 309, etc.  
     bone, 153  
     clay, 228  
     stone, 161, 228  
 Store-chambers, 27 f., 43, 48  
     vessels, 126, 256  
 Stork, 18



- Straw, used in making bricks, 96,  
122, 123, 137
- Stucco, 137
- Swords, 184
- Taanach, 94, etc.  
cuneiform tablets from, 301  
fortresses at, 107 f.
- Tell ej-Jezer, 17; see *Gezer*
- Tell ej-Judeideh, 81, etc.  
city-wall of, 77 f.
- Tell el-Amarna tablets, 109, 300,  
332
- Tell el-Hesi, 65, 66, 149, etc.; see  
also *Lachish*  
large building at, 117, 118
- Tell el-Mutesellim, 74, etc.; see  
also *Megiddo*  
buildings at, 122 f.  
fortress at, 104 f.
- Tell es-Sâfi, 65, 158  
city-wall at, 76 f.  
"High Place" at, 334 f.
- Tell es-Sultan, see *Fericho*
- Tell Sandahannah, 66  
caves at, 49  
city-walls of, 80 f.
- Tell Zakariya, 65, 66  
fortress at, 74 f.
- "Tells," 65
- Temples, 359 f.
- Terâphim*, 160, 363
- Terra-cotta, 273 f.  
buttons, 291  
figures, 273 f.  
spindle-whorls, 291
- Thebes, tombs at, 56
- Thoth, the god, 156
- Throne, terra-cotta model of, 291
- Throwing-stones, 168
- Tombs, 19; see also *Burial Customs*
- Tristram, H. B., 7
- Troglodyte caves, 25, 27 f.
- Troglodytes, 18, etc.  
burial customs of, 303  
rampart (?) of, 68
- Venus, the planet, 365
- Vincent, Père Hugues, 7, 8, 102,  
107, 111, 112, 137, 141, 144,  
160, 178, 200, 219, 273, 315,  
etc.
- Virgins' Pool, the, 177
- Wa'ret Salâmeah, cistern in, 58
- Water, springs of, 53  
-barrels, 132  
-conduits, 140  
-passage at Gezer, 53 f.
- Waterpots, 34, 40, 57, 244, 256
- Watzinger, Dr. Carl, 21, 84, 85, 86,  
118, 119, 120, 125, 127, 128,  
132, 137, 152, 158, 161, etc.
- Weights, 158, etc.  
bronze, 203  
clay, 132  
iron, 211  
lead, 211  
stone, 168
- Whistle (?), stone, 175
- Windows, 137
- Wine-jars, 132, 309  
-presses, 56 f.
- Wood, 50, 138, 360, etc.  
for architectural purposes, 123,  
126  
handles, 144, 145  
pins, 154
- Wood, H., 322
- Woolley, C. L., 19, 113, 114, 145
- Yah, mention of, 298
- Yahû, mention of, 298
- Yahveh, 273, 298
- "Yô," mentioned in inscriptions,  
300
- Zin, fortress in wilderness of,  
113
- Zinjirli, 278
- Ziph, mentioned on jar-handles,  
294

The Gresham Press  
UNWIN BROTHERS, LIMITED  
WORKING AND LONDON



